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A

TREATISE

OF THE

PLAGUE:

CONTAINING

AN HISTORICAL JOURNAL, AND MEDICAL ACCOUNT, OF THE PLAGUE, AT ALEPPO, IN THE YEARS 1760, 1761, AND 1762.

ALSO,

REMARKS ON QUARANTINES, LAZARETTOS, AND THE ADMINISTRATION OF POLICE IN TIMES OF PESTILENCE.

TO WHICH IS ADDED,

AN APPENDIX,

CONTAINING

CASES OF THE PLAGUE; AND AN ACCOUNT OF THE WEATHER, DURING THE PESTILENTIAL SEASON.

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PREFACE.

SHOULD the preſent work, in any degree, contribute to throw further light on the Medical Hiſtory of the Plague; ſhould it ſuggeſt more effectual means of preventing the infection being brought from foreign parts, or of hindering it from ſpreading, on the ſuppoſition of its invaſion; but, above all, ſhould it induce thoſe who poſſeſs the power of correcting errors and ſupplying defects, to beſtow ſome attention on the defenſive meaſures which have been propoſed, at different times, to the Legiſlature, and partly adopted; I ſhould look back with ſatisfaction on the dangers incurred in collecting a part of my materials, and on the time employed in preparing the whole for the public eye.

The hopes of not being wholly diſappointed in theſe expectations, have encouraged me to add one to the multitude of medical books already publiſhed on the plague; and to engage in diſcuſſions relating to quarantines, and other regulations of police adapted to circumſtances of public diſtreſs, when reſtraints, unuſually rigorous, become indiſpenſably neceſſary, and the moſt humane exertions of the magiſtrate carry an appearance of adding to the accumulated calamity of the times.

Nothing, however, can be further from my intention than to diſturb the public tranquillity, by raiſing needleſs apprehenſion of uncertain evils. Above one hundred and twenty-five years have elapſed ſince Britain was afflicted with the plague; and the alteration in the manner of living, as well as the improved diſpoſition of ſtreets and dwelling-houſes, which have almoſt univerſally taken place in that interval, may be conſidered as circumſtances unfavourable to the propagation of contagious diſeaſes. But if a moral probability of the plague again invading the

iſland be admitted, and that the moſt effectual proviſion ſhould be made againſt an event of ſuch dreadful conſequence, it will ſcarcely be diſputed that provident meaſures can never be ſo well concerted as in times of tranquillity, when there is leiſure for undiſturbed deliberation.

Such times have ſeldom, in Britain, been ſelected for that purpoſe. The ſubject has hardly ever been taken up by the Legiſlature, except under apprehenſion of impending danger, and when due deliberation was in a manner precluded, by the urgent neceſſity of immediate deciſion. I have been at ſome pains to elucidate this fact by ſeveral examples, though it muſt be ſufficiently evident to every one who examines the progreſs of the quarantine laws, from the year 1710.

The following ſketch, of the plan which I have attempted to execute, may ſerve to give the reader ſome idea of the work.

The firſt book contains an Hiſtorical Journal of the Plague at Aleppo, during three ſucceſſive years; to which is prefixed a ſhort account of the progreſs of the plague in Egypt, in Cyprus, and in ſundry towns in Syria, previouſly to its reaching Aleppo. The practice of the Levant, in times of peſtilence, has often been ſtrangely miſrepreſented in Britain; and it being a matter of material conſequence, in reſpect to quarantines, that the conduct of the European inhabitants of that country, as well as that of the natives, ſhould be diſtinctly known, I have entered into a fuller detail on the ſubject, than my late Brother thought it neceſſary to do, in the account of the former plague at Aleppo, in his Natural Hiſtory of that city.

In the ſecond book, is given a medical account of the diſeaſe, from my own experience and obſervation. To which, by way of notes, are ſubjoined ſome occaſional remarks on the deſcriptions

ſcriptions of the diſeaſe, and on the practice of ſome former phyſicians, more particularly of thoſe of Provence, in the years 1720 and 1721.

In elucidation of my deſcription of the diſeaſe, as alſo of the ſucceſs of the method of treating it, a conſiderable number of caſes are given in the Appendix, to which references are frequently made, in the courſe of the work. The difficulties met with in keeping regular journals, and the reaſon of ſo many of theſe caſes being preſented in a much leſs complete ſtate than I could have wiſhed, are explained in their proper places.

In the narrative of the caſes, matters are repreſented exactly as they appeared to me, at the time; and, having eſpouſed no hypotheſis, I have the leſs apprehenſion of incurring any ſuſpicion of their being modelled, either for the purpoſe of ſerving a theory, or of claiming particular merit from the treatment purſued in the cure.

The ſecond book concludes with a chapter on *re-infection* in the plague, and relapſe. The neglect of diſcriminating the one from the other, has greatly conduced to perplex what has been ſaid on the ſubject, by moſt of the authors who have fallen in my way; and I have not found ſtated, in any of them, the proportion of the inſtances of *re-infection* which they had met with in the courſe of their practice. Regarding this therefore to be a *deſideratum* in the hiſtory of the diſeaſe, I have given my own eſtimate, formed upon a conſiderable number of infected patients, and have added ſome practical remarks on the difficulty of diſtinguiſhing relapſe from *re-infection*, in certain caſes.

The third book treats of peſtilential contagion, that is, of its ſenſible properties, ſo far as they appear to have been aſcertained by experience. As to the abſtruſe nature of the contagious miaſms, and their manner of acting on the human body, with other theo-

theoretic matters belonging to the ſubject, I have paſſed them over intirely. Nor have I entered fully into the controverſy concerning the plague being a contagious diſeaſe; thinking it better to make reference to ſome of the authors by whom, in my opinion, the queſtion has been ſatisfactorily determined. But, previouſly to what I had to offer on the ſubject of quarantines, I judged it incumbent to advert more particularly to the arguments, againſt the plague being contagious, which were urged by the antagoniſts of Doctor Mead, in the year 1720. And, many of theſe arguments being principally grounded on the ſuppoſed courſe of the laſt plague at Marſeilles, I have endeavoured, by a minute examination of the authentic records of that plague, to eſtabliſh the infectious property of the diſeaſe, upon the very teſtimonies which have been produced on the other ſide of the queſtion.

The pains employed to eſtabliſh a fact, which, at preſent, is controverted by ſo few, may, at firſt ſight, appear altogether ſuperfluous. But however indiſputable the fact of the plague being contagious may be deemed by modern phyſicians, it may be remarked, that it has been ſtrongly oppoſed, as often as the ſubject of quarantine has fallen under the deliberation of the Legiſlature; and the Public, at ſuch times, have been conſtantly peſtered by an inundation of pamphlets which, without advancing any thing new, merely retailed arguments which had long before been refuted.

In tracing the courſe of the plague at Marſeilles, particular attention has been paid to its decline; and, upon a compariſon with what has been obſerved in Egypt, Syria, and in Great Britain, a remarkable ſimilarity will be diſcovered in its decline, under circumſtances very different. With this part of the ſubject is connected a material regulation reſpecting the expurgation of infected houſes, as well as other precautions recommended in the decline of the peſtilential ſeaſon.

The

PREFACE.

The opinion I have adopted, that a certain conſtitution of the air is neceſſary, in concurrence with imported infection, to the propagation of the plague, may perhaps be erroneous. But, that the plague, at certain times, is introduced by means of intercourſe with infected places, and that a ſimilar intercourſe, at other times, is attended by no bad conſequence, I conceive to be indiſputable facts, which, without ſuppoſing ſome concurrent alteration in the air, I find myſelf at a loſs to account for.

It was an opinion maintained in the laſt century, that Britain was ſubject to periodical returns of the plague; and it is imputed to Sydenham, (but I think erroneouſly) that he aſſerted it was *neceſſarily* ſubject to ſuch periodical viſitations. He certainly held the opinion, that the plague was never bred in Britain, and, when brought in from other countries, that it would not ſpread, if not favoured by a certain conſtitution of the air.

The frequent return of the plague at London, in former times, ſuppoſes the return of that conſtitution of the air which is neceſſary (according to Sydenham) to the ſpreading of infection. But in accounting for Britain's having enjoyed ſo long an interval free from the plague, notwithſtanding the increaſe of its commerce with the Levant, there is no need to ſuppoſe the Britiſh climate no longer liable to a return of that peſtilential conſtitution of the air, which is ſuppoſed to have been incident to it formerly; the matter may more readily be accounted for, from better precautions being taken for our defence than formerly, and the providential non-concurrence of the peſtilential conſtitution of the air, and imported infection.

The fourth book treats of Quarantines. In this, the moſt material objections to them, founded on the ſuppoſed impoſſibility of the plague being conveyed in merchandiſe, are ſtated

and examined; and misrepresentations, respecting the precautions employed by the Europeans resident in Turkey, are corrected. In further proof of the infection being conveyed in merchandise, an account is added of the plague's introduction to Messina, in 1743.

The late Sir James Porter, in his book, entitled Observations on the Law, Religion, &c. of the Turks, having, in several instances, when treating of quarantine, fallen into errors, especially respecting Syria, I have shown in what he was misinformed, and have examined, with attention, what he has offered on the subject of quarantine. But, as he places great reliance on the precautions observed in Turkey, in shipping goods for England, agreeably to regulations established by the Levant Company, I have given a particular account of those regulations, and entered into a detail of the present practice in the Levant.

The next objects of consideration are Patents, or Bills of Health, which I have endeavoured to show are, in their present form, much less to be relied on than is commonly imagined. Whether the alterations suggested will meet with approbation, I know not; but I apprehend it to be beyond dispute, that alterations of some kind are become absolutely necessary.

On the supposition that the precautions practised in Turkey, afford very imperfect security against exportation of the plague, I have proposed some new regulations; but, foreseeing many obstacles to carrying such improved regulations into execution, in that country, I have ventured a decided opinion that, though precautions in Turkey ought not to be neglected, the principal defence against the plague, will be due precautions in the reception of ships, and merchandise, on their arrival in Britain.

The fifth book is employed on Lazarettos, and the Method of performing Quarantine. Previously to entering on those subjects,

ſubjects, it was judged proper to diſcuſs certain general objections to Lazarettos, in which they are repreſented as unneceſſary; as inadequate to the purpoſe of their eſtabliſhment; as dangerous to the public health; and highly detrimental to the commercial intereſts of the nation. I have collected together the ſtrongeſt arguments urged in favour of theſe allegations, and conceive that, by thoſe who view them in the ſame light in which they appear to me, the ſubſequent part of the fifth book will not be deemed ſuperfluous.

The deſcription given of a Lazaretto, is a mere ſketch. The principal points are only ſuggeſted; the means of accompliſhing the deſign are out of my province.

In deſcribing the method of receiving ſhips, and of purifying their cargoes, adapted to ſhips under various circumſtances of ſuſpicion, I have all along endeavoured to elucidate the ſubject by appoſite examples; and, though the deciſions I have preſumed to give are, in general, conſonant to the practice in countries where quarantines are beſt underſtood, I am fully ſenſible that they will require reviſal, and correction, by perſons more converſant in the adminiſtration of Britiſh police.

No Britiſh ſhip, bound for England, is permitted to depart from Turkey with a foul patent: a prohibition which ſhould undoubtedly be continued till the eſtabliſhment of regular Lazarettos. But as there is a poſſibility, with reſpect to a ſhip that brings a clean patent, of the plague breaking out in the courſe of the voyage, or while diſcharging her cargo, it becomes highly neceſſary that proviſion ſhould be made for ſuch a contingency; and, eſpecially, that a refuge, with ſuitable conveniences for the inſtant ſeparation of the infected from the ſound, ſhould be eſtabliſhed for ſhips with the infection actually on board. Having reaſon to think, that no refuge, ſo provided, exiſts

in the Britiſh dominions, I have endeavoured to place the neceſſity of providing one in the ſtrongeſt light, and at the ſame time to point out the danger, to the public ſafety, reſulting from the ſtrong temptation to breach of quarantine, under the preſent regulations.

In the diſcuſſion of this ſubject, I have been led into a review of the Quarantine Laws, and of ſome ſubſequent orders of the Privy Council, iſſued occaſionally in ſuſpected times. If the freedom with which I have animadverted on both, ſhould ſtand in need of apology, it will, I truſt, be ſought in the motives which produced the remarks. Should the remarks be found juſt, and happily ſuggeſt hints to thoſe who poſſeſs the power of reformation, their intention will be accompliſhed.

In the preſent ſituation of public affairs, the eſtabliſhment of regular Lazarettos in Britain is, probably, at a diſtance. Some temporary regulations are therefore propoſed, to render quarantine, without a Lazaretto on ſhore for merchandiſe, of leſs precarious ſecurity than the methods now in uſe, which, with ſome reaſon, are ſuſpected of not affording ſecurity againſt the plague, in any degree adequate to the heavy expence, and the needleſs reſtraints, with which they fetter commerce.

I have taken an opportunity, on this head, of inſerting a Memoir on the Eſtabliſhment of a Lazaretto, drawn up by my late Brother, in the year 1758, at the requeſt of the late Lord Chatham, then Miniſter of State. It contains a ſketch of a Lazaretto, of prattique houſes, with the complement of quarantine officers, &c. Though the paper be incomplete, I thought it worth preſerving.

The ſixth book is allotted to ſuch political regulations as become neceſſary, when the plague actually exiſts in a place. On this ſubject, volumes have been publiſhed by ſome eminent

Italian writers; and many excellent precepts, reſpecting the police at times of ſuch difficulty, may be found in the ſecond part of the Traité de la Peſte, &c. publiſhed at Paris, by order of the King, in the year 1744. I have met with few modern Engliſh authors who have treated the ſubject, profeſſedly. The moſt eminent of thoſe was Doctor Mead, who, in the year 1720, when the nation was alarmed by the plague at Marſeilles, wrote his book at the requeſt of Government*. Sir John Colbatch publiſhed two ſmall Tracts†, ſoon after, and ſeveral other pamphlets appeared at London, about the ſame time. In 1745, Doctor Lobb publiſhed certain Letters on Contagion‡, which had been read at the Royal Society, but not publiſhed in the Tranſactions.

Though I ſometimes differ in opinion from Doctor Mead, I have the pleaſure to concur with him in the moſt material points. His cenſure of the methods employed, in former times, at London, for ſuppreſſing infection, I conceive to be rather indiſcriminately ſevere. Among the regulations publiſhed, by order of the King in Council, in 1603, (of which I have given an abridged account), as well as among the orders iſſued in the ſame year, by the Mayor and Alderman, many unexceptionable articles will be found, which are worthy of revival, in caſe of neceſſity.

* A ſhort Diſcourſe concerning Peſtilential Contagion, and the Methods to be uſed to prevent it. By Richard Mead, M. D. Lond. 1720.

† A Scheme for proper Methods to be taken, ſhould it pleaſe God to viſit us with the Plague. By Sir John Colbatch, Member of the College of Phyſicians. London, 1721.

Obſervations on the Scheme, lately publiſhed. By the ſame Author.

‡ Letters relating to the Plague, and other Contagious Diſtempers. By Theophilus Lobb, M. D. Lond. 1745.

PREFACE.

The directions propoſed by Doctor Mead, gave riſe to an Act of the Britiſh Parliament, which, on account of certain clauſes extraordinarily rigorous, met with much oppoſition, and was ſeverely condemned. Powers given to Government to remove families infected with the plague from their own habitations, and to ſeparate the ſound from the ſick; or to ſurround infected towns with trenches and guards; whatever may be the advantages propoſed to the community, will ever be unpopular, and excite jealouſies: ſuch powers therefore ſhould be carefully limited, and clearly defined.

To the ſhort account I have given of the parliamentary proceedings in that buſineſs, in the years 1720 and 1721, are added ſome remarks on the above Act of Parliament; and it is hoped, as they are made with due reſpect to high authority, the liberty taken will the more readily be excuſed.

The regulations propoſed to the police, are calculated for the four different ſtages of the peſtilential ſeaſon: its beginning, increaſe, height, and decline. But though arranged in this formal manner, they are by no means offered as a complete ſet of precepts, or rules. To form ſuch, requires the united wiſdom of many perſons, or, at leaſt, appears to be a taſk for which few individuals are qualified. What I have attempted is little more than to ſuggeſt improvable hints, under the reſpective diviſions; and to point out books, from which uſeful information on the ſubject may be collected.

I have, however, preſumed to enforce certain precepts, which I conceived to be more particularly important. For inſtance, to attempt, by every means, an early diſcovery of the plague, while yet lurking in a place; and, when once aſcertained, to declare it immediately, inſtead of deceiving the public by falſe repreſentations. To have immediate recourſe to precautions for the public ſafety, permitting neither the diſcordant opinions

opinions of phyſicians, nor the deluſive hopes of the contagion not ſpreading, to encourage procraſtination. To ſhut up the churches, and great hoſpitals, at an early period; and to eſtabliſh public repoſitories for lending money on pledges. To all theſe, as well as to ſome of the other regulations, objections may poſſibly be ſtarted, which have not occurred to me. Far from being obſtinately tenacious of my own opinions, however deliberately adopted, I ſhould rejoice to ſee more effectual regulations eſtabliſhed, than thoſe I have propoſed, which are moſtly ſelected from the practice of foreign countries, and from that of England in former times.

The indiſcriminate removal of infected families, and the immediate ſeparation of the ſound from the infected, by the interpoſition of the magiſtrate, are, of all regulations, the moſt liable to objection, and the moſt likely to meet with diſapprobation. The influence of adminiſtration, the high reputation of Mead, and the recent alarm from the plague in France, were hardly able, even conjointly, to ſtem the torrent of oppoſition, which theſe regulations encountered in 1720.

With ſuch an example in view, I ſhould not have ventured to revive the ſubject in theſe times, had it not been from a perſuaſion of the expediency of the meaſures propoſed, and of their being capable of ſuch modification, and explanation, as would naturally preſent themſelves, in a deliberate and impartial diſcuſſion, in the Senate, if undertaken at a time free from all apprehenſion of immediate danger.

There is one precept of which I dare venture to ſpeak with ſome confidence, from my own experience. It regards thoſe who, having no retreat in the country, are under the neceſſity of remaining in town during the time of a plague. All ſuch, whoſe ſituations can poſſibly admit of it, ſhould, early in the ſeaſon, make proper pre-

proviſion of neceſſaries, and ſhut themſelves up in their houſes, after the manner of the Levant *. Of the ſucceſs of this expedient in Syria, as well as in ſeveral cities of Europe, many inſtances are given in the following work. To theſe I have added a caution intended for perſons thus ſhut up, who, alarmed by the increaſing devaſtation in the height of the plague, might be tempted to fly elſewhere for protection; being fully perſuaded that, at a period when the diſeaſe has ſpread ſo generally, flight is attended with more danger of infection, than remaining ſhut up in town: on the ſuppoſition always, that the rules of confinement are ſtrictly obſerved.

To the regulations belonging to the province of police, is added a chapter on ſuch medical directions as are uſually publiſhed at the requiſition of Government, in times of the plague. In this, I have taken the liberty to hint the propriety of a reviſal of the directions publiſhed in the laſt century, by the College of Phyſicians of London, in which ſome reformation appears to be highly requiſite, as well in regard to the advantage of the public, as to the reputation of the College.

On the ſubject of fumigation, a practice which Doctor Mead ſeems to have too haſtily depreciated, I have entered more at large; but having little to offer from my own experience, authorities are produced which, to me, appear fully ſufficient to remove prepoſſeſſions againſt fumigation, and to encourage future trials. The method of purifying houſes by ſmoke, is particularly deſcribed, and a liſt given of the principal ingredients uſed for that purpoſe.

A few remarks are made on internal and external preſervatives againſt the plague, of which a copious collection is to be found

* The method of ſhutting up, is particularly deſcribed in Ruſſell's Natural Hiſtory of Aleppo.

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in books. I wiſh I had been able to give more ſatisfactory information concerning the uſe of fontanels, and tobacco, both which have been ſtrongly recommended as preſervatives; and I ſincerely regret that experience has not put it more in my power to propoſe better inſtructions for perſons who, by their duty, are obliged to approach the infected.

After the ſketch of the plan, now given, it may perhaps be proper to ſay ſomething of the arrangement, and ſtyle. In regard to the former, it may be ſuggeſted in extenuation of faults, that the work was chiefly compoſed in a foreign country, diſtant from the literary friends, who might have adviſed and corrected. In regard to the latter, it might juſtly be deemed arrogance, in a man who, through a great part of life, has been compelled, by his ſituation in Turkey, to the practice of languages very different in idiom from his own, to pretend to exemplary pureneſs, or elegance in writing. In arrangement, it was my aim to avoid confuſion; in ſtyle, to avoid affectation and ſoleciſms. A reſpect which, I think, every voluntary writer owes to the public, led me to exert my beſt endeavours to attain the points in view; but, whatever may have been the labour beſtowed on this performance, I am ſincerely conſcious that much ſtill remains for the indulgence of candour, and for the correction of liberal criticiſm.

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ERRATA. Engliſh.

Page 8, line 6, or, *read* and. P. 10, l. 31, capucine, *r.* capuchine. P. 12, line 16 & alibi, carmalite, *r.* carmelite. P. 15, l. 1, enterval, *r.* interval. P. 18, l. 5, chriſtians *r.* chriſtian. P. 25, l. 9, prepable, *r.* probable. P. 29, l. 14, ſpight, *r.* ſpite. P. 36, l. 2, road, *r.* rode. P. 42, l. 3, to, *r.* by. P. 43, l. 4, terminatation, *r.* termination. P. 49, l. 17, ordnance, *r.* ordinance. P. 59, l. 26, indeed, *r.* induced. P. 65, l. 6, admonitary, *r.* admonitory. P. 69, margin, byals, *r.* byaſs. P. 72, ultim. loemog. *r.* loimolog. P. 74, l. 14, preſents, *r.* preſent. P. 78, l. 17, determination, *r.* termination. P. 79, l. 17, that, *r.* in that. P. 81, penult. caſe 150, *r.* 101. P. 82, l. 29, inteilects, *r.* intellect. P. 90, l. 1, affect, *r.* effect. P. 92, l. 15, & alibi, reaching, *r.* retching. P. 93, l. 7, they effected, *r.* as it affected. P. 96, l. 13, & alibi, proecordia, *r.* præcordia. P. 105, l. 18, phoenom. *r.* phænom. P. 110, l. 21, & alibi, run, *r.* ran. P. 121, l. 27, ſemenis, *r.* ſeminis. l. 31, cruſtaſum. *r.* cruſtoſumque. P. 122, l. 4, cuticile, *r.* cuticle. P. 128, l. ultim. extravac, *r.* extravaſated. P. 129, l. 20, & alib. putrifaction, *r.* putrefaction; ebulition, *r.* ebullition. P. 134, l. 16, reddiſh circle, *r.* purpliſh circle. P. 135, ult. diffuſam, *r.* diffuſum. P. 145, l. 9, borne, *r.* born. P. 146, penult. & alibi, Senertus, *r.* Sennertus. P. 148, l. 22, girl, caſe iv. *r* caſe v. P. 152, l. 14, ſymptomic, *r.* ſymptomatic. P. 155, l. 26 & alib. diſpenſary, *r.* diſpenſatory. P. 161, l. 7 & alib. accidulated, *r.* acidulated; l. 17, effect, *r.* affect. P. 162, l. 4, coluvies, *r.* colluvies. P. 166, l. 15 & alib. emolient, *r.* emollient. P. 173, l. 8, dilitation, *r.* dilatation. P. 176, l. 15, provence, *r.* province. P. 181, l. 28, τῶ *r.* τῶ. ant. pen. prelections *r.* prælections. P. 190, ultim. after caſe 113, *r.* c. 114; and for ſecond c. 113, *r.* c. 118. P. 193, l. 5, vomitting, *r.* vomiting. P. 203, ultim. Sweiton, *r.* Swieten. P. 206, l. 30. norelog. *r.* noſologia. P. 214, l. 14, references, *r.* inferences. P. 217, l. 27, A. M. Pons, *r.* M. Pons. P. 350, ant. pen. a Doctor, *r.* Doctor Pringle formerly mentioned. P. 358, l. 28, ſuch, *r.* ſtrict.

ERRATA. French and Italian.

Page 81, line 23, s'teignent, *read* s'eteignent; l. 35, ſorbleſſes, *r.* foibleſſes. P. 121, l. 16, point noir, *r.* pointe noire. P. 122, l. 22, eryſipelatoux, *r.* eryſipalateux. P. 127, l. 29, charbonneuſe, *r.* charbonneuſes. P. 136, l. 22, de, *r.* du. P. 168, l. 22, Chicoyneaux, *dele* x; l. 25, pratlque, *r.* pratique. P. 169, l. 30, medecines, *r.* medecins. P. 170, l. 9, moins, *r.* moyens. P. 175, l. 17 & 19, les, *r.* le; l. 29, provence, *r.* province. P. 176, l. 22, emporté, *r.* emporter; l. 7, eſcare, *r.* eſcarre; l. 25, progreſs, *r.* progres. P. 177, l. 21, Goſſier, *r.* Goſier. P. 183, l. 20, Agoſtiano, *r.* Agoſtiniano; l. 23, riſinati, *r.* riſanati; l. 32, gueries, *r.* gueris. P. 184, l. 30, une, *r.* un; autre, *r.* autres. P. 185, l. 23, terminoi, *r.* terminoient. P. 186, ultim. qu'paravant, *r.* qu'auparavant. P. 188, l. 28, peſtilentielles, *r.* peſtilentiels. P. 189, l. 27, briſer, *r.* briſé. P. 195, l 26, il y à, *r.* il à. P. 200, l. 11, ce communiquer, *r.* ſe communiquer. P. 237, l. 33, ſujects, *r.* ſujets. P. 240, l. 21, infetta, *r.* infettata. P. 259, l. 17, celibrono, *r.* celibrorno. P. 262, l. 14, ovverro, *r.* ovvero. P. 366, l. 27, H, *r.* il. P. 380, penult. commenc, *r.* commencé. P. 424, l. 18, e la ragione, *r.* le ragioni. P. 494, l. 20, eſpurgazione, *r.* eſpurgazioni. P. 512, l. 28, remedio, *r.* rimedio. P. 540, penult. de, *r.* di. P. 541, l. 29, le, de, *r.* li, di. P. 549, ult. du, *r.* di. P. 568, l. 29, deilla, *r.* della.

ERRATA. Appendix.

Page 1, line 3, in the, *read* of the.

N. B. In all the caſes, the dies menſis, are expreſſed by letters, at length; the dies morbi, by figures.

P. 3, l. 13, 3d day, *r.* 4th day. P. 11, l. 29 & alib. run, *r.* ran.

UNIVERSITY OF
1813
SCHOOL OF MEDICINE

A

TREATISE

OF THE

PLAGUE.

BOOK I.

An Hiſtorical Journal of the Plague at ALEPPO, Anno 1760, 1761, and 1762.

CHAP. I.

A ſummary Account of the Plague in Egypt.

BEFORE entering on the Hiſtorical Journal of the Plague at Aleppo, I ſhall give a ſhort ſketch of the progreſs of the diſtemper in ſundry places, previouſly to its reaching that city.

In the beginning of the year 1759, the plague prevailed at Conſtantinople, in ſeveral of the iſlands of the Archipelago, and in ſome of the towns on the coaſt of Aſia Minor.

In the month of January of that year, a merchant ſhip from Conſtantinople arrived at Alexandria, which had loſt ſeveral perſons in the plague, in the courſe of the voyage; and, as ſoon as

BOOK I. ſhe came into port, ſome others, ill of the ſame diſtemper, were put on ſhore.

1759. Egypt. In this manner, as it was believed, the plague, imported into Egypt, was ſoon communicated to Roſetta and Damietta; as alſo to ſeveral of the villages on the road to Grand Cairo, which city began to be alarmed towards the end of February. The Europeans, in Cairo, ſhut up the 28th and 29th of March; and remained in confinement much longer than uſual: for they did not come abroad till the middle of July.[1]

The plague broke out again at Grand Cairo, in the month of February of the following year; and ſpread ſo faſt that the Europeans ſhut up the 9th of March. But the native Chriſtian Merchants remained abroad till the end of the month. The confinement ended, this ſeaſon, about the 24th of June.

The mortality, in both years, was very conſiderable; though the account was certainly exaggerated, which made it, in the firſt year, amount, in Cairo, to upwards of three hundred thouſand; and, in the latter year to half that number.[2]

[1] It is aſſerted by Proſper Alpinus, that the plague conſtantly ceaſes at Cairo in the month of June; and that houſehold furniture, or other infected goods, as ſoon as the ſun enters Cancer, loſe all power of communicating the infection.

The ſame notion ſtill ſubſiſts at Cairo, as to the period of the plague's termination; and I have been aſſured, by perſons long reſident in Egypt, that the year 1759 afforded the only inſtance, in the preſent century, of the Europeans having remained ſhut up after St. John's day. But it may be proper, at this place, to remark, that the Europeans in the Levant, as they never ſhut up immediately on the firſt appearance of the plague; ſo neither do they ever remain in confinement 'till the diſtemper has abſolutely ceaſed. The real termination, therefore, of the plague cannot be aſcertained from the practice of the Europeans, in this reſpect. All that can be concluded from their coming out from confinement, is only that the plague was very conſiderably diminiſhed. See Book III. C. 5.

[2] Computations of this kind, are at beſt, in thoſe countries, very inaccurate; and, I believe, there is little doubt, that the number of inhabitants in Cairo, has, in general

CHAP II.

Account of the Plague in Cyprus.

THE plague was brought to Cyprus in the month of April 1759, and its progreſs in that iſland, having been attended by ſome remarkable circumſtances, I ſhall here give the following extract from an account that now lies before me; on the fidelity and accuracy of which, I can venture to depend. 1759. Cyprus.

In the month of April, 1759, a large Turkiſh veſſel, laden at Alexandria, and bound for Conſtantinople, was wrecked in her paſſage, not far from Cape Baffo.[1] Of the crew who were ſaved, a great part happened to be infected with the plague; which was firſt communicated to certain villages on the road to Limſol, and afterwards to that town itſelf.[2]

neral, been reckoned much greater than it really is. I have ſet down however, the account as received from my correſpondent in Egypt, without preſuming to alter it.

In the year 1736, Egypt had been afflicted with a plague ſtill more terrible, in which 10,000 were ſaid to have periſhed at Cairo in one Day. The mortality here, was, without doubt, exaggerated greatly, though it muſt have been uncommonly dreadful; for the Europeans ſhut up the 9th of February, and were confined till the 24th of June. This plague was the only one that happened in this century, which was believed by the people of Cairo, to have been brought from upper Egypt. The others were always thought to have been imported from Conſtantinople, or Candia; but never from Syria, or Barbary.

[1] This Cape, on the weſt end of the iſland, is diſtant from Limſol, about 16 leagues.

[2] "Limſol is ſituated on the ſouth ſide of the iſland, forty miles diſtant from Lar-
"nica. It is, though not rich, a very pleaſant place, accommodated with an ex-
"ceeding good bay for ſhips. It has a wretched caſtle, and ſome ſmall ſhare of
"trade; yet this ſmall ſhare is greater than all that of the other ſea ports, except
"Larnica; which, being the reſidence of the Europeans, carries all before it."

BOOK I. 1759. Cyprus.

Some of the ſailors died in the villages. The reſt, after a ſhort ſtay at Limſol, proceeded to Larnica ;[3] where they remained only a few days, 'till a veſſel preſented, in which they croſſed over to Syria. None of them died in Larnica ; though it was known that ſeveral actually had the plague.

The contagion ſpread with ſuch rapidity at Limſol, that, in the month of June, upwards of four hundred perſons were reckoned to have died of it. Many of the inhabitants fled to the neighbouring villages, and to the mountains, tranſporting the contagion along with them. But though the plague ſhowed itſelf, now and then, in thoſe parts where the fugitives had taken ſhelter, as well as in other inland villages which had intercourſe with Limſol ; yet it was only about Baffo, and near to Limſol, that it ſpread conſiderably.

The condition of Larnica, at this period, was remarkable. It had received part of the infected crew from Limſol ; it had maintained a conſtant intercourſe with the infected quarters of the iſland ; peaſants and mule-drivers from thoſe parts, with the peſtilential ſores on their bodies, were daily in the ſtreets and markets ; and ſome of them died in the houſes of Larnica. On the 22d of May, a veſſel arrived from Damietta, which put on ſhore ſome infected paſſengers and ſailors, who lodged in the houſes, and communicated freely with the natives. Another Turkiſh veſſel, from the ſame place, arrived, ſome time after, with infected perſons on board ; one of which, died on landing at the Marine. Notwithſtanding this new importation, none of the inhabitants of Larnica were known to have contracted the plague. The Europeans, from whom many of the above circumſtances were, at the time, carefully kept ſecret, obſerved no pre-

[3] "Larnica, called, by way of eminence, Cyprus, is pleaſantly ſituated at the "diſtance of a ſhort mile from a ſpacious bay, cloſe on which ſtands Salines, the ſea "port of Larnica ; and, by the Europeans, commonly called the Marine."

Drummond's Travels. Lett. VIII.

cautions for their own ſafety; while the natives conſoled themſelves with a traditionary notion, that a plague which did not begin in December, was not to be dreaded. CHAP II. 1759. Cyprus.

During the hot months of July, Auguſt, and September, little was heard of the plague; and it was generally ſuppoſed to be extinguiſhed at Limſol as well as in the villages; but, the truth was, it had all along continued lurking in thoſe parts, ſhowing itſelf only by ſtarts; particularly at Baffo, Piſcopi, and other villages on the weſtern and ſouthern ſides of the iſland.

In the month of October, the plague increaſed in thoſe parts, where it had appeared in the Spring; and, ſoon after, broke out at Nicoſia;[4] to which place, the annual Fair of St. Demetrio had drawn a great concourſe of people from moſt parts of the iſland. The magiſtrates of Nicoſia endeavoured, at firſt, to conceal the nature of the diſtemper, under the name of a malignant fever; and, in December, when eight or ten died daily, the dead bodies were buried privately in the night, in order to prevent the inhabitants being alarmed by frequent funerals. But, towards the end of the year, matters became too ſerious for ſtratagems of this kind; for the contagion, which had, ſome time before, got among the Greeks and Armenians, was now arrived at ſuch a height, as, on ſome days to carry off fifteen Chriſtians; which people, in number, bear a ſmall proportion to the Mohammedans.

The Europeans at Larnica, deceived for ſome time by falſe accounts from Nicoſia, continued to walk about without apprehenſion; and, even when better informed, by letters from the Terra

[4] "Nicoſia, the capital of Cyprus, ſtands about 25 miles to the northward of "Larnica. This city is round; and may be about three miles in circumference; "but not well inhabited; a circumſtance to which it owes its very beautiful appear-"ance: for this want of people affords room for a great number of gardens, planted "with orange, lemon, and cyprus trees, &c. which exhibit a moſt delightful variety, "to the eye of one who walks upon the ramparts." *Drummond.*

BOOK I.

1759. Cyprus. Santa convent, about the beginning of January, which clearly aſſerted the nature of the malady reigning in the Capital, and which carried off between forty and fifty perſons daily, they ſtill were inclined to doubt the intelligence, and to indulge ill-grounded hope: neglecting thoſe precautions, which, however ſalutary, muſt in ſome meaſure bring all commercial affairs to a ſtop.

1760. Towards the end of January, the plague advanced ſo dreadfully at Nicoſia, that the Mohammedans enjoined public proceſſions and ſupplications: an expedient, which, by bringing together a promiſcuous croud of people, ſerved only to propagate the contagion more effectually. The Europeans at Larnica, now, caught the alarm; for the fugitives from Nicoſia, exaggerating the ſcenes of calamity from which they had fled, ſpread terror wherever they came.

Feb. In the beginning of February, the diſtemper appeared among the Turks at the Marine; and, ſoon after, at Larnica. The Europeans ſhut up. The daily burials, ſoon increaſed to eight or ten; and during February, never exceeded twenty. In the month of March, the diſeaſe would appear to have been more malignant than at firſt; for few or none of the infected recovered. The daily funerals aroſe to twenty-five, and thirty; and many of the inhabitants fled to the mountains.

The diſtemper continued to rage at Larnica all the month of April; and ſpread, at the ſame time, over the iſland; penetrating even into the province of Carpaſs;[5] a circumſtance not known to have ever happened before. At the Marine, the daily burials decreaſed; which was attributed to the flight of the wretched inhabitants; many of whom, like thoſe of Larnica, abandoned their half deſolate houſes, and ſought refuge in the country.

[5] Carpaſs lies near the promontory of that name, in the narrow and eaſtern extremity of the iſland.

In

1760. Cyprus. April.

In this month alſo died ſeveral of the Europeans at Larnica. In the family of the Neapolitan Conſul, a French gentleman, who lodged in the houſe; two children; the Conſul himſelf, and ſeveral ſervants; all died ſucceſſively. The widow of a Neapolitan, who had loſt her huſband in the plague ſometime before, gave conſtant attendance on the Conſul, as well as the others infected of that family, without any bad conſequence. M. Leſebure, a French ſurgeon, who had been eſtabliſhed many years at Cyprus, died about this time. He had caught the infection in the courſe of his attendance on a ſick perſon; but could not be perſuaded that he himſelf had got the plague, 'till a few hours before his death, when the buboes appeared. This gentleman was carefully attended by his partner, by a prieſt, and by two ſervants. Of which, the prieſt only was infected; and he died within a few days after. The above inſtances may ſerve as an anſwer to an aſſertion, boldly hazarded and often repeated, that Europeans, in Turkey, are inſuſceptible of the plague.

Among inſtances of perſons eſcaping infection, in ſituations of moſt dangerous expoſure, there were two ſingularly remarkable. The one, a young Greek, whoſe conſtant occupation was to nurſe the ſick, and aſſiſt the buriers of the dead. The other, a Grecian woman, exceedingly corpulent; who having affectionately nurſed her huſband, during his illneſs, and two of her daughters, who both died of the plague, continued afterwards to expoſe herſelf with uncommon courage, in the aſſiſtance of all the ſick in her neighbourhood.

In the month of May, died the ſon-in-law of the Neapolitan Conſul, and ſome other Europeans; among whom was the Superior of the Terra Santa convent. As this convent had ſhut up at the ſame time with the European merchants, and was ſuppoſed to have rigorouſly obſerved all the uſual precautions; when the Superior was taken ill, the other fathers, having no ſuſpicion the diſorder could be the plague, communicated freely with him at the be-

BOOK I. 1760. ginning of his ſickneſs. When the certain marks of the plague were diſcovered; the fathers were much frightened; but, all of them eſcaped the infection.

Cyprus.

While Larnica and Famaguſta ſuffered ſeverely from the plague, it was decreaſing faſt at Nicoſia; in which city, it was computed, there had died near twenty thouſand Turks, and between four or five thouſand Greeks and Armenians: a vaſt mortality! in proportion to its population.

Towards the end of May, the plague was, ſenſibly, on the decline at Larnica, as well as moſt parts of the iſland. It had almoſt ceaſed at Famaguſta, after having in a manner deſolated the city; and, in the adjacent country, hardly left hands ſufficient to gather in the harveſt. In June, peſtilential accidents continued to happen from time to time at Larnica; but the ſick, in general, recovered. The heat of the weather was, now, conſiderably increaſed; though, ſometimes, interrupted by cool ſhowery days, on which perſons ſick in the plague, were obſerved to ſuffer remarkably.

June.

Te Deum was ſung by the French on the 3d of July. In the courſe of that month, all the Europeans came out from confinement and the iſland was, at length, delivered from the plague; which, if the computation generally received was true, had deſtroyed ſeventy thouſand of the inhabitants.[6]

[6] "The number of Turks in the kingdom of Cyprus, may amount to one hundred "and fifty thouſand: and, that of the Chriſtians to fifty thouſand; I mean Greeks "who are ſubjects of the Grand Signior; for as to the Europeans who live at Larnica, "or Salines, and no where elſe, they do not amount to one hundred.

"The greateſt part of the inhabitants live at Nicoſia, Larnica, Famaguſta, Carpaſſo, "Baffo, Cerigna, Limſol, and Salines. But I cannot learn the particular number "inhabiting each of theſe places: for they do not know how to make any tolerable "exact eſtimate, nor do they give themſelves any trouble about the matter. In the "villages, there are about four thouſand Turks, who pay contribution; and, of the "Greek ſubjects, about twelve thouſand. So that theſe laſt conſtitute, by far, the "greateſt part of the labourers in this country." *Drummond's Travels. Lett.* VII.

CHAP. III.

Progreſs of the Plague in different Places of Syria, before its invading Aleppo.

THE winter of the year 1756 had been moſt uncommonly ſevere, not only in Syria, but likewiſe in Meſopotamia, and Aſia Minor. At Aleppo the cold was exceſſive beyond what had been ever known;[1] a great part of the olive plantations, in the adjacent country, as well as a number of Cyprus trees, were utterly deſtroyed.

Through the ſummer of the year 1757 grain of every kind bore a very high price, and as the winter approached, became ſcarcer and dearer; inſomuch, that from the month of December in that year, till the following June, moſt parts of Syria and Meſopotamia might be ſaid to have ſuffered all the miſeries of extreme famine. In the month of February, 1758, a malignant petechial fever made its appearance at Aleppo, and advancing rapidly with the ſpring, raged throughout the ſummer and part of the autumn. This fever reigned with influence not leſs extenſive than the famine, and both together produced every where a mortality little inferior to that of the true plague. Syria, 1758.

Syria had ſcarcely begun to recover from thoſe calamities, when ſhe was afreſh alarmed with repeated ſhocks of earthquakes, and by reports of the plague having been imported from Egypt.

On the 30th of October, 1759, part of the city of Damaſcus was laid in ruins by an earthquake, which did conſiderable damage

[1] The mercury in Farenheit's thermometer, within doors, fell to 14. In the open air it was obſerved more than once during an hour or two, in the morning, to ſink ſo low as to within 2 or 1 of 0.

BOOK I.

alſo to ſeveral of the neighbouring villages, as well as to the maritime towns, Acri and Sidon. The ſame ſhock had been felt at Tripoly, Antioch, and Aleppo; but thoſe towns ſuffered more from a ſecond ſhock on the 25th of November: from which period, till the end of the year, ſlighter earthquakes continued to be felt over all Syria.[2]

Saffat. 1759.

Among the villages which had ſuffered remarkably from the earthquake of October, was Saffat; a great part of the houſes having been overthrown, and ſeveral of the inhabitants buried in the ruins. Early in November, intelligence was received at Tripoly, of the plague having made its appearance in that unfortunate village, and was, by ſome, conſidered as a conſequence of the preceding earthquake: but it appeared afterwards, that the plague had ſhown itſelf at Saffat before the 30th of October, and had been brought thither by ſome infected Jews, who came from Alexandria. This diſcovery proved conſolatory to the people of Tripoly, who entertained a traditional opinion that the plague thus tranſported from Egypt, was much leſs to be dreaded than when it came from the northward by the way of Aleppo.

The intelligence from Saffat was ſoon followed by letters from ſome of the French gentlemen at Sidon, which mentioned the plague's having begun to ſhow itſelf there, as well as at Acri; in both which cities it increaſed conſiderably in the ſubſequent months.

Tripoly. 1759.

Immediately after the earthquake of November, the French factory at Tripoly had abandoned the city, and encamped in the neighbourhood. In this ſituation, the Conſul was informed, about the 10th of December, that two perſons had died of an illneſs attended with very ſuſpicious ſymptoms, in a houſe adjoining to the Capucine convent in town; and a few days after, a Jeſuit, who practiſed

[2] I tranſmitted an account of thoſe earthquakes to England, which was afterwards publiſhed in the *Philoſophical Tranſactions, Vol. 21ſt. P. 2. p. 259, &c.*

practiſed medicine at Tripoly, declaring he had ſeen a man who was certainly infected with the true plague, the Conſul thought proper to ſend the national Surgeon to inquire into the circumſtances of the caſe. The Surgeon, upon viſiting the patient, differed in opinon from the Jeſuit, declaring the diſtemper was not the plague; and no other accident being heard of by the Europeans, for twenty days after, it was generally believed the Jeſuit had miſtaken the caſe. CHAP. III. 1759. Tripoly.

On the 10th of January, a meſſenger from Sidon arrived at Tripoly with letters for the French factory. The man was dangerouſly ill when he landed, and being viſited by the French Surgeon, a bubo was diſcovered in the arm-pit; he died within forty hours after coming on ſhore. The letters underwent the uſual purification.

Through the remainder of January, and the greater part of the month following, though accidents in the city were heard of from time to time, they were ſo rare, that people in general entertained ſtrong hopes of the contagion making no great progreſs. About the end of February, the Baſhaw of Sidon came to Tripoly, where he remained for a few days. The plague was immediately diſcoverd among his retinue at the palace, and accidents ſoon becoming frequent in other parts of the city, the Europeans begun to make preparations for the entering into confinement; but did not ſhut up till the end of March. 1760.

The plague ſpread rapidly in April; it continued in a conſiderable degree during May and June; through July it declined; and diſappeared towards the end of the ſucceeding month. The Europeans ſometimes ventured to go abroad from the 10th of Auguſt, but did not properly open their houſes till twelve days later.

Near one half of the infected were ſaid to have recovered; and the number of the dead were reckoned to amount to five thouſand: but this eſtimate may be ſuſpected to have been exaggerated.

BOOK I.

1762. Tripoly.

During the year 1761, Tripoly remained free from all ſuſpicion of the plague. Early in the following year, alarming accounts were received of its having broke out in ſeveral villages in the neighbourhood, and particularly at Tortoſa. None of thoſe villages had, it ſeems, been viſited in the year 1760, which was urged as a reaſon why Tripoly, which had already ſuffered ſhould eſcape. The alarm, however, ſubſiſted for ſome time, and was heightened by the frequent arrival of fugitive families from Aleppo, who, according to the cuſtom of the Eaſt, had brought their bedding along with them. Although, in ſome of thoſe families, there were perſons actually in the plague, no inſtance was known where the contagion was communicated to the natives of Tripoly.

About the beginning of April in this year, the French Pro-Conſul was informed by the Jeſuit that he had then a female patient in the plague, under his care. Some time after, a young girl, near the convent of the Carmalites, being attacked with a violent head-ach and vomitting; a ſmall bubo appeared in the arm-pit. The French Surgeon again differed from the Jeſuit in reſpect to this caſe, affirming the diſeaſe was not the plague. The girl recovered in a few days, and no other inſtances of the ſame kind were heard of within the city; but, at the Marine, ſome infants and children, to the number of thirty or forty, were attacked much in the ſame manner: of which four or five died. The natives, in general, joined with the Jeſuit in declaring the diſeaſe to be the plague: the French Surgeon all along maintained the contrary opinion. The alarming condition of Aleppo, at that time, contributed, in all probability, to incline the Europeans, at Tripoly, to think the Jeſuit in the right; ſo that moſt of them ſhut up in the beginning of May, and remained in confinement till the firſt of June. From that time, Tripoly appears to have remained undiſturbed by any rumours of peſtilential accidents.

Latakea.

The plague diſcovered itſelf at Latakea about the middle of March, 1760. Two children, in the ſame houſe, died within a day of

of one another, and were ſuppoſed to have caught the infection of a meſſenger who had come from Acri. Theſe accidents were not publickly known till ſeveral days after; for the Father, whoſe office as Sheh or Head of the meſſengers, led him often to the European houſes, aware of the conſequence of the diſcovery, did all that lay in his power to conceal theſe accidents. The next accident that reached the knowledge of the Europeans was that of a Greek waſher-woman employed by the ſailors belonging to the Cypriote boats, who, about the end of the month, died alſo of the plague. CHAP. III. 1762 Latakea.

The diſtemper had increaſed ſo much in different parts of the town, by the 10th of April, that the Engliſh Conſul prohibited his ſervants from going out of the houſe, and had recourſe himſelf to proper precautions in his communication with the natives. The daily funerals amounted to ſix or ſeven; and the French ſhut up: but the other Europeans did not ſhut up till the 17th.

The plague increaſed gradually from the 17th of April to the 13th of May; from which time, till the 5th of June, it raged with great violence; it then declined viſibly, though not regularly, till the 27th: after which the decreaſe of the mortality was remarkably ſudden; the funerals falling from twenty to nine; and though on the 4th and 5th of July the funerals roſe again to above twenty, they immediately fell under ſix.

The Europeans ventured abroad in the latter fortnight of July, but did not lay aſide all precaution before the firſt of Auguſt. The funerals at that time were reduced to one a day, and after the 5th of the month, no accidents were known to happen at Latakea; but the plague ſtill continued in the villages in the adjacent mountains.

There were very few families in the town, who had not had the diſtemper in the houſe; and it was reckoned that on the whole, nearly as many of the infected recovered as died. The mortality

BOOK I.

amounted to about four thouſand, including five hundred Chriſtians, and fifty Jews. The natives reckoned between five and ſix thouſand to have died: but the firſt eſtimate was in all probability neareſt the truth; for the place but a little while before had been greatly depopulated by emigrations produced by the tyranny of a Governor rapacious in an extraordinary degree.

1762. Latakea.

1760. Jeruſalem and Damaſcus.

Jeruſalem received the contagion ſome time in January or February, and about the beginning of March it reached Damaſcus: in both which places, as well as in the ſmaller towns and villages of Paleſtine, it made dreadful havock through the ſubſequent months. The courſe of the diſtemper was nearly the ſame as at Tripoly and Latakea: but I dare not venture a particular detail; the accounts I collected from thoſe parts having been chiefly from the natives, and therefore, though perhaps true in general, not ſufficiently accurate. The mortality was, no doubt, exaggerated by common report, but it certainly was in moſt places conſiderable, more eſpecially at Damaſcus.[3]

CHAP. IV.

Hiſtorical Journal of the Plague at Aleppo, Anno 1760.

Aleppo.

WHILE the plague was ſpreading terror and deſolation over Damaſcus, and the maritime towns of Paleſtine and Syria, Aleppo had little reaſon to flatter itſelf with hopes of remaining exempt from the common calamity. That city which would appear to be

[3] By the end of May, according to my intelligence, no leſs than nineteen Friars of the Terra Santa convents had died out of twenty-one who had been infected at Jeruſalem, Damaſcus, and other places in that neighbourhood.

ſubject

CHAP. IV.

1760. Aleppo.

ſubject to periodical viſits from the plague,[4] had enjoyed an enterval unuſually long. The ſeaſons for ſome time before, had been obſerved to deviate from their uſual regularity, while an extenſive commerce with infected places, and a total inattention to the means of preſervation, ſet open many channels for the reception of the diſtemper. It may be added, that the preſent period had been preceded by famine, by uncommon diſeaſes, and by earthquakes; a comet had been obſerved in the ſpring of the year 1759; and in the preſent year an eclipſe of the ſun; all which portentous events have ever, in the Eaſt, been conſidered as forerunners of a peſtilence.

But neither common ſenſe, nor credulous ſuperſtition, operated as might have been expected; the people of Aleppo were neither properly alarmed nor exceſſively terrified; for while thoſe of better underſtanding, from an averſion to think at all on an unpleaſing ſubject, ſubmitted indolently to deluſion; the populace were employed in detecting the abſence of other prognoſtics, without which, it ſeems little was to be apprehended from the contagion. They remarked that no deſertion of birds had been hitherto obſerved, nor mortality among the cattle; that the frogs were not leſs vociferous, nor ſwarms of inſects more numerous than in other years: whence conſolatory hopes were encouraged, and the reports of the plague's approach were for a long time diſregarded.

It is worth remarking, that although peſtilential accidents had happenened at Saffat in October, and, ſoon after, at Sidon and Acri, yet no account of them reached Aleppo ſooner than the month of February, and even then the reports were ſo vague and contradictory, that they obtained little credit till the month of April; when certain intelligence was received of the French gentlemen being ſhut up at Tripoly, and of the plague having got to Damaſcus.

[4] Natural Hiſtory of Aleppo.

About

BOOK I.

1760. Aleppo, May.

About the beginning of May, Caravans arrived at Aleppo from Jeruſalem, Damaſcus, and Latakea. As they came from places where the plague was then raging, and ſeveral of the perſons belonging to them were ſaid to be actually infected, the public apprehenſion was ſomewhat alarmed. It was aſſerted at the ſame time that ſeveral perſons lately arrived, lay infected in different parts of the town; but theſe reports were ſtrenuouſly contradicted.

Three Turkiſh merchants, who had come in the Damaſcus Caravan, were lodged at a public Khane near the Britiſh conſulary houſe, and after a ſtay of a few days, they ſet out from Aleppo on the 16th of May. Next day the porter of the Khane (an Armenian) together with his ſon, were taken ſuddenly ill. The ſon died on the 19th; and the brother of the porter was taken ill in the ſame manner as the others. Theſe men had been employed in attendance on the Turkiſh ſtrangers, and had aſſiſted in moving and packing their baggage; but none of the ſtrangers appeared to be ſick. Nothing was heard of thoſe accidents till after the death of the ſon, and they were then ſaid to have been produced by ſome victuals which had remained too long in a copper veſſel, given to the Armenians by the Aga of the Khane at the Turkiſh feaſt. It was the morning of the 21ſt before I was diſtinctly informed of this, and then determined to viſit the ſick.

Upon going to the Khane, I found both the ſick perſons lying in the ſame chamber.[5] From the whole of their appearance, there was little room left for doubt, as to the nature of their diſtemper, although their attendant affirmed confidently, that he had not been able to diſcover ſwellings of any kind upon ſearching them. In the mean while, this was a material circumſtance to be aſcertained, and as I had already more than once touched the pulſes of the ſick, it ſeemed to be worth while to riſk a little more in order to be ſatisfied with reſpect to the eruptions. I therefore

[5] For a deſcription of the condition of thoſe men, ſee *Appendix, Caſe* I. and II.

prevailed

prevailed with the attendant to ſearch the porter once more, while I undertook, myſelf, to ſearch the brother. I examined the right axilla and both groins without meeting any tumours, and was about deſiſting, when a ſmall hard ſwelling was diſcovered in the left axilla. The ſuſpicions raiſed by the other ſymptoms, were now ſtrongly confirmed; but being aware of the conſequence of a declaration publickly of the diſtemper, and having never before ſeen an inſtance of the plague, I declined giving an opinion till next day, when probably ſome alteration in the tumour would remove all further doubt. This accordingly happened, for in the evening of the day following I found the tumour, which the attendants would fain have perſuaded me was entirely gone, conſiderably enlarged. CHAP. IV. 1760. Aleppo. May.

The porter died in the night of the 22d, and his brother the night following. Of four Armenians who, by turns attended the ſick, not one caught the infection.

The ſituation of the Khane, in the center almoſt of the houſes of the Europeans, prevented thoſe accidents from being concealed, as they probably would have been, had they happened in a more remote quarter of the city. The caſes were allowed to be extraordinary, but were accounted for in the manner already mentioned, which appeared the more probable, as the diſtemper had been communicated to none of the attendants, and no peſtilential accident in any other part of the town was heard of till ſeveral days after.

During this calm, I had the mortification to lye under the popular cenſure for the having too raſhly decided on a matter of which I could have no pretenſions, at leaſt from experience, to be a competent judge. But having at firſt given due information to the Europeans, and having no remaining doubt of the nature of the diſtemper, inſtead of attempting to juſtify myſelf from the imputation of ignorance, I choſe rather to ſubmit in ſilence to what

BOOK I. has been the common lot of thoſe, who, on ſimilar occaſions, have ventured to diſturb the public tranquillity.

1760.
Aleppo.
May.

Towards the end of May, arrived ſeveral caravans from Jeruſalem and Damaſcus, in which were infected perſons. The caravans conſiſted of Chriſtians and Turkiſh Pilgrims on their return to the northward, and being, under various pretexts, refuſed admittance to the city, they encamped without the walls, and buried ſeveral perſons during their ſtay; but ſeveral individuals found private lodgings in the town, and ſome natives of Aleppo, who came in the ſame caravan, returned to their houſes with buboes ſtill open; for though the caravan, deſtined for another place, might be refuſed admittance, natives, nor indeed individuals in whatever condition, could not be excluded the city. Notwithſtanding this dangerous importation, not more than ſix peſtilential accidents came to my knowledge, from the 23d till the end of May, that is, within the city; but ſeveral happened in the ſuburbs, and accidents became every where more frequent in June.

June.

About the beginning of that month came a caravan from Tripoly, in which were ſeveral infected; and, on the 8th and 9th, ſeveral more infected ſtrangers arrived from differents parts; but this not being generally known, the public continued to be deluded by confident aſſertions that ſuch as had really died of the plague in town, were ſtrangers from abroad, who had brought the infection along with them; that the inhabitants of Aleppo had nothing to apprehend in the preſent year, becauſe the air was ſtill pure, and their conſtitutions not diſpoſed to receive the infection; in favour of which notion it was urged, amongſt other arguments, that the Jews, who in a particular degree are expoſed to catch the infection, had hitherto remained untouched.

The fact reſpecting the Jews happened to be true; but the hopes founded on it were of ſhort duration. A Jew banker was taken ſuddenly ill on the 14th whilſt in his ſhop, and died on the third

1760. Aleppo. June.

third day ;[6] being the firſt inſtance I met with of peſtilential accidents among the Jews. None, of ſeveral female attendants conſtantly employed about this man, received the infection, but one of the grave diggers who aſſiſted at the burial, was taken ill immediately on his return home, and died alſo in three days. He left his brother, who lived in the ſame houſe, ill of the infection, and from him it paſſed in ſucceſſion through the whole family, conſiſting of five or ſix perſons, of which two only recovered.

My account of the infected on the 16th of June, amounted to ſeventy, in which number were included the convaleſcents, who had come from other places: but after the plague had once diſcovered itſelf among the Jews, its progreſs in their diſtrict, as alſo in other parts of the city newly infected, became an object of more conſequence than the importation of the plague from abroad; ſo that during the remainder of the ſeaſon, I was leſs attentive to the ſtate of the caravans that arrived from Damaſcus and other places.

It is remarkable that before the middle of June, it was rare to find more than one perſon ſick in the ſame family, even in the houſes of the meaner claſs; and the attendants employed immediately about the ſick, ſo often eſcaped the infection, that people were too often led to believe the diſeaſe was not the true plague: but in the laſt fortnight of June, whilſt a greater proportion of the ſick recoverd, the diſeaſe became manifeſtly more contagious.

The plague had ſhown itſelf from time to time in ſome of the Khanes and ſtreets in the inner parts of the town, but its power ſeemed to be chiefly exerted in Maſhirka, and in thoſe parts within, near the town wall, between the Dark Gate and Nereb Gate, comprehending the weſt and ſouth weſt ſkirts of the city. After the middle of June, the contagion reached the extenſive ſuburb

[6] Appendix. Caſe III.

BOOK I.

1760. Aleppo. June.

Bankuſa, and ſpread gradually northward to the Judeda, touching ſlightly in its paſſage the intermediate ſuburbs which, like the Judeda, contain a number of Chriſtian inhabitants. In all theſe parts, its progreſs was remarkably ſlow, as well as in the Jewiſh diſtrict, and the central parts of the city; for though the diſeaſe, from its firſt appearance, was highly malignant, inſomuch that hardly one in eight of the infected recovered, the daily funerals, before the 21ſt of June, ſeldom amounted to ſix, and through the remainder of that month rarely exceeded eight.[7]

After the middle of June, a larger proportion of the infected recovered than before: for which reaſon the increaſe of the contagion, if eſtimated from the mortality, would appear leſs than it really was; and if, from the alarm raiſed at that time among the populace, it would appear much greater; becauſe when once the diſtemper gets among the Jews and Chriſtians, it ſoon comes to be better known, not only to the Europeans, but to the city in general, than when confined to remote diſtricts of the town, among people who have little connection with the commercial part of the citizens: to this may be added, that the death of one or two perſons of diſtinction never fails to make more impreſſion on the multitude, than the death of twenty obſcure perſons periſhing in the ſame malady.

On the 27th of June, a Chriſtian lady in the Judeda, was ſeized with the plague; the ſon of an Effendee of high rank died in the city; and the brother, together with a female relation of the Jew banker, formerly mentioned, died about the ſame time. Each ſect of the inhabitants having now a local proof of the exiſtence

[7] Peſtilential burials only are underſtood here, that is, ſuch as, according to the accounts brought by the waſhers of the dead, had viſible marks of infection upon the body, or ſuch as died under my own obſervation. But the number of peſtilential deaths was certainly greater, for the town was remarkably healthy in other reſpects, ſo that ſeveral more may be ſuppoſed to have died of the plague, notwithſtanding no external marks were diſcovered after death.

of

CHAP. IV.

of the diſtemper, and all happening to become public together, a general dread and credulity ſucceeded, in which every thing that had been reported of the plague before, as well as what continued to be reported for ſome time after, was readily believed. 1760.

Aleppo.

June.

To whatever cauſe might be aſcribed the plague's not ſpreading with more rapidity in the ſeaſon generally reckoned the moſt favourable to its propagation, it is certain that towards the latter end of June, it had, in a manner, ſurrounded the city, and was found diſperſed in ſeveral of the more central ſtreets; inſomuch, that there was hardly one diſtrict in which I did not know of perſons lying infected. The ſituation was ſuch as rendered it high time the Europeans ſhould conſult their own ſafety; for although their quarter remained hitherto free, it was impoſſible to foreſee how long it might continue ſo; nor could very dangerous communication with the natives be prevented, as long as the doors were kept open and the domeſtic ſervants permitted to go abroad. Former experience did not juſtify any expectation of the diſtemper's terminating ſooner than the end of Auguſt; and to put off preſervatory caution till the danger ſhould approach nearer, was evidently to run the riſk of ſhutting up with the infection. Theſe conſiderations induced the gentlemen of the Britiſh factory, who had ſome time before made preparations for ſuch an event, to ſhut up entirely the laſt day of June. The other Europeans ſhut up about the ſame time. June 30.

In order to be more at liberty to viſit the infected, without expoſing others to the danger I was willing to incur myſelf, I had, ever ſince the firſt appearance of the plague, withdrawn myſelf from the ſociety of the Europeans. The time was now arrived to take the reſolution either to continue to expoſe myſelf as before, or to retreat to my own houſe; for without performing a previous quarantain, it would have been improper to have taken refuge in the houſe of any of the gentlemen of the factory.

Though

BOOK I.

1760. Aleppo. June.

Though there was good reaſon to believe the confinement would not be of long duration, there was little ground for expectation that the plague would not break out again in the enſuing year: it became therefore a conſideration to one who had no thoughts of an abſolute retreat from the city, to carry his view forward, however gloomy the proſpect before him might be. I was ſufficiently convinced that a phyſician muſt unavoidably be expoſed to no ſmall degree of danger in the beginning and in the decline of a plague; that is, for ſome time before ſhutting up, and ſome time after coming abroad from confinement; it being then uſual to conceal the diſtemper by artifices beyond the power of the moſt ſcrupulous caution always to defeat. It is not uncommon for the phyſician to be led to the bedſide of a peſtilential patient, whom he had been ſolemnly aſſured was labouring only under ſome ordinary diſeaſe.

But conſiderations of ſtill more importance, were the difficulty of detecting the diſeaſe under that variety of ſhapes it was apt to aſſume, more eſpecially at the beginning; and the ſerious conſequence of the phyſician's deciſion with reſpect both to others and to himſelf. Where a caſe, not peſtilential perhaps, was pronounced to be the plague, the patient was often in hazard of being abandoned to the care of mercenary attendants; the family in the utmoſt conſternation deſerted the houſe; the dread of bringing the infection along with them rendered it a difficult matter to procure ſhelter elſewhere; and it ſometimes happend, that the unhappy family, in the very houſe choſen for refuge, was ſoon involved in the calamity from which they had fled. On the other hand, where the caſe was really peſtilential, a miſtake in opinion, by preventing a timely retreat or proper precaution, expoſed, perhaps, a numerous family to imminent danger, as well as the phyſician's own health: not to mention the conſequences extended to other families, into which confidence in his ſkill and integrity procured him acceſs, without ſuſpicion or reſerve.

A knowledge of the plague ſufficient to enable a phyſician, in ſome meaſure, to avoid errors of ſuch importance, did not appear attain-

CHAP. IV.

attainable in any other manner than by actual practice among the infected: and though ſuch acquiſition could not be made without riſk in a conſiderable degree, yet that riſk, in as much as it was voluntarily incurred, ſeemed preferable to precarious ſecurity, attended by diffidence, irreſolute deciſions, and the chance, after all, of contracting the diſtemper, perhaps in the very moment when leaſt expected. Conſiderations of this kind had the more weight from my own ſhort experience of the plague, which, though far from having hitherto enabled me to diſtinguiſh in every caſe, had taught me to decide readily enough in ſome by which I had formerly been embarraſſed. Convinced therefore, as I was, that the moſt certain road to further acquiſition was that in which I ſet out at firſt; I determined to give myſelf up to an attendance on the infected, at leaſt for one ſeaſon: a reſolution which, although it carried to others the appearance of preſumptuous raſhneſs, I was able to juſtify to myſelf on ſuch principles as left me calmly reſigned to the conſequences.

1760. Aleppo. June.

The plague had got to near its height about the time the Europeans entered into confinement; the daily funerals which were then nine or ten, ſeldom afterwards exceeded ſixteen or eighteen; and that only during the firſt week of July. As a larger proportion, however, recovered than in June, the contagion might be ſaid to be on the increaſe till the 10th of July. After the middle of that month, it declined ſenſibly, more eſpecially in the ſuburbs to the ſouth, where it had hitherto chiefly ſubſiſted; and though more accidents were heard of at this time among the Chriſtians, the diſtemper, in general, was certainly in its decline. Towards the end of the month it was greatly diminiſhed.

July.

The European conſuls, with moſt of the French gentlemen, remained ſhut up till the end of July: moſt part of the Engliſh began to come abroad about ten days ſooner.

In the firſt week of Auguſt, the funerals increaſed; owing partly to the plague, but moſtly to the ordinary autumnal diſeaſes, more

eſpecially

BOOK I.

1760. Aleppo. Auguſt.

eſpecially to a remittent fever which became rife about this time. To this fever indeed was aſcribed the whole mortality; for the ſame induſtry which had been uſed at the beginning of the ſeaſon to perſuade the Europeans that the contagion had not reached the city, was now employed to perſuade them of its total extinction. But the peſtilential accidents, though few in number, were too notorious to be called in queſtion, except by a few of the dependants on the Europeans, who continued to affirm that the epidemic fever was the only diſeaſe remaining in the city. At length a ſingle accident raiſed an alarm among them and the Jews, not leſs than if the plague had unexpectedly broke out afreſh. The beginning of Auguſt a Rabbi, who kept a ſchool for boys, was taken ill; but it was not publickly known till the day after. I found him ſurrounded by above a dozen of his ſcholars, beſides ſeveral women and children of the family, of all which, none caught the infection except his wife, who fell ill within eight days after him, and recovered. The man himſelf died the 6th of Auguſt.[8]

After the 10th of Auguſt, recent inſtances of infection became exceedingly rare. The laſt caſe I had occaſion, myſelf, to ſee this year, was that of a Turkiſh lady, who on the 18th, called in at my houſe on her return from the bagnio. She had been ſeized two days before, and ſhowed me a ſmall axillary bubo. I heard of no inſtance of infection later than the 17th, nor could I learn, on the ſtricteſt enquiry, that any perſon had died in Aleppo of the plague, after the 20th of Auguſt.

The number of the dead in this year, according to my account, did not exceed five hundred: an inconſiderable mortality, conſidering that the plague had not been confined to one diſtrict, but was found in a diſperſed manner in many parts of the city.[9]

[8] Appendix. Caſe VII.

[9] The funerals were leſs attended to in this than the ſubſequent years: but I do not think they exceeded the number mentioned above, peſtilential funerals only are here meant, and children under three years are not included.

CHAP. V.

CHAP. V.

Hiſtorical Journal of the Plague at Aleppo, Anno 1761.

1761.

Aleppo.

THE plague had diſappeared at Aleppo, in the preceding year, about the 20th of Auguſt. The autumnal ſeaſon was rather ſickly, but the predominant diſeaſes bore no peſtilential marks, and went off on the approach of winter, leaving the city in a ſtate of tranquillity little diſturbed by apprehenſions of what might happen the enſuing ſpring. The hopes generally entertained of the total extinction of the plague, were not, however, ſupported by the experience of former times: on the contrary, it was highly propable from the progreſs of the diſtemper hitherto, that it would break out again in the vernal months. The ſequel furniſhed a freſh proof of the expediency of making provident preparation, in circumſtances ſo ſuſpicious, for the worſt that might happen.

The villages which are ſituated in the plains round Aleppo, and which had been ſlightly, like that city, viſited by the plague, remained throughout the winter free from any contagious diſtemper; but the villages in that chain of mountains between Antioch and Latachea, which had received the contagion late in the autumn, retained it all the winter, and in ſome of them it made conſiderable progreſs, notwithſtanding a pretty ſevere froſt in the month of January.

In the month of December, ſome perſons retired from the mountains of Shogre to Edlib, on account of the plague then frequent among the villages; and, not long after, an infected family from one of thoſe villages, came alſo to Edlib, where ſome of them died. It will not appear ſtrange that accidents of this kind ſhould have ſometimes happened, conſidering the conſtant intercourſe ſubſiſting between the villages in the mountains

BOOK I.

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Aleppo.

and the towns of Antioch, Shogre and Edlib; nor is it improbable that ſimilar accidents happened at Aleppo alſo, although they came not to the knowledge of the Europeans.

In the mean time ſo far is certain, that although infected perſons came from the mountains to the three towns juſt mentioned, and ſome of them died in the families where they lodged, yet the diſtemper, by ſuch means, was not propagated; as if diveſted of that contagious property in the plains, which it ſeemed to retain undiminiſhed in the mountains.

It was not in my power to procure exact accounts of the plague among the deſert Arabs, nor in the numerous villages to the ſouth and to the eaſt of Aleppo; but the towns and villages to the northward had hitherto remained untouched. It is probable the Arabs had received the infection from Damaſcus in the ſummer, and that it continued all the winter in their encampments. It had certainly got to a conſiderable height among them early in the ſpring of this year, and about the beginning of March had reached the village Spheery [1].

It muſt no doubt appear ſurprizing how the plague ſhould have continued ſo long in the mountains at no great diſtance, and the Europeans in Aleppo remain ignorant of it: or, that they ſhould not have been more alarmed by ſuch reports as happened to reach them. But it will appear ſtill more ſtrange, that in Aleppo itſelf, ſixty or ſeventy perſons had been carried off by the plague, before the Europeans knew any thing of the matter; and when information was given publickly of the plague's being actually within the city, that there ſhould be found perſons who allowed themſelves for ſome time to be impoſed on by the artifice commonly uſed to conceal the diſtemper: artifice which former experience had both detected and expoſed.

[1] A village about three hours from Aleppo, ſituated on the borders of the deſert.

Soon

CHAP. V.

1761. Aleppo. March.

Soon after the middle of March, the plague reached an Arab encampment, cloſe to Nereb Gate, and a Keiſaria, within the city, near the caſtle. In both places the mortality amounted to above ſixty or ſeventy, before any thing was known of it to the Europeans.

The firſt intelligence I myſelf received was on the 29th of March, and the fact being confirmed by a viſit I made next day at the Keiſaria, the Conſul not having it in his power to grant a clean patent, a ſhip at Scanderoon ſailed without taking even letters from Aleppo, and the whole of her intended cargo then on the road to the ſea-ſide remained behind, incapable of being ſhipped for England till the end of the year following.

The plague had broke out in the Arab camp and in the Keiſaria nearly about the ſame time; and in the former did not prove leſs fatal; for of ſixty-eight perſons infected, three only recovered. Soon after its appearance it became ſo formidable, that many of the Arabs abandoned their tents, ſome flying to the villages abroad, whilſt others took refuge in the houſes of their friends within Nereb Gate, or in the ſuburbs lying between that gate and Bankuſa, to which parts the contagion was probably by theſe means communicated; for I was afterwards informed by one of the waſhers of the dead, that in March he had not only met with infected bodies among the Arabs, but likewiſe among the native Turkiſh inhabitants of the diſtricts now mentioned.

Oppoſite to the Arab camp, at the diſtance of leſs than a hundred paces, was encamped a tribe of Chinganas, who when they obſerved the diſeaſe to increaſe ſo faſt among the Arabs, had the prudence to tranſport their tents to a village at a little diſtance from town, ſo that in the beginning of May there were only five or ſix tents remaining at Nereb Gate. It is remarkable that, notwithſtanding the vicinity of the two camps, and though the Chinganas did not begin to remove their tents till near the

BOOK I.

middle of April, two of them only were infected with the plague, or at leaſt (as I was well aſſured) two only died.

1761.

Aleppo. March.

When it was known publickly in the city that a clean patent had been refuſed by the Conſul, people in general were ſurprized that the Engliſh caravan, which had left the city early in the morning, had been permitted to ſet out, and were ignorant from whence the Conſul ſhould have received ſuch unexpected intelligence; for this laſt circumſtance had been communicated only to the gentlemen of the factory. Some of the dependants on the Europeans declared loudly, that there was not the leaſt ground even for ſuſpicion; while others confeſſed they had heard vague reports, which, upon enquiry, were found not to be true. At the ſame time ſome of the French, as well as other Europeans, were inclined to join in the opinion, that the Engliſh Conſul had been too eaſily alarmed; for it ſeemed againſt all probability that the plague ſhould really be in the city, and yet the natives know nothing at all of the matter.

This was a natural enough ſuppoſition, if by the natives be underſtood the Maronite Chriſtians, the Jews, or others connected with the European warehouſes; for the plague undoubtedly may for ſometime ſubſiſt in certain parts of the town, unknown to them, unleſs they be at ſome pains, and ſtep out of the ordinary tract of buſineſs to make enquiry about it. It were to be wiſhed at the ſame time, when they come to know of the plague, whether by ſearch or by accident, they could be perſuaded to think the intereſt of commerce leſs concerned in the concealment of it.

April.

After the firſt week of April, reports of the plague were contradicted with leſs and leſs confidence in moſt parts of the town, except the quarter of the Europeans and in the Judeda, where they gained but little credit till about the middle of the month. The diſtemper indeed advanced ſlowly, and moſtly in the ſkirts of the city or diſtant ſuburbs. But its progreſs then

was

was the leſs attended to, as no accident had hitherto happened in the public Khanes, nor had any Turk of note or condition died within the city. About the middle of the month ſome accidents appeared in the quarter of the Jews, and in the Judeda. 1761. Aleppo. April.

It was now the month of Ramadan; a ſeaſon in which the public bazars and the coffee-houſes are unuſually crouded in the night, and in which the Turks, as well as Chriſtians, from different and remote quarters of the city, mingle more together than at any other time of the year. May.

As the contagion was not obſerved to ſpread with ſuch rapidity as might in ſuch circumſtances have been expected, ſome pretended it had totally ceaſed, which, however improbable, would have been more generally believed, had not peſtilential accidents, from time to time, come to be known, in ſpight of the care employed to hide them from the public.

The Byram of the Turks, and the Eaſter of the Greeks, happened this year nearly about the ſame time. Thoſe feſtivals laſt three days, and, beſides interchange of viſits of ceremony at private houſes, they are the occaſion of crowds aſſembling together at all the public places of reſort. There were, at this time, few or none who did not believe the plague was in the city, among the lower people the ſubject was talked of without reſerve; but in aſſemblies of higher rank, as it would have been reckoned unpolite to ſadden the time with unpleaſing news, truth ſeemed to have been baniſhed by general conſent; and it was common to hear mutual congratulations, on the deliverance from the peſtilence, uttered with the utmoſt ſolemnity, by perſons who, on other occaſions, were ſcrupulouſly honeſt [2].

Accidents

[2] I met at this time with a curious inſtance of diſſimulation. On a viſit of ceremony to the Mufti, the firſt day of the Byram, a perſon eſteemed of great erudition, took occaſion in the midſt of a large company, to declaim, for ſome minutes, on

BOOK I.

1761.

Aleppo.

May.

Accidents happened among the Jews early in May, but it was near the middle of the month before it became generally known that the plague had reached that quarter.

From this period all contention ceaſed. Thoſe who had hitherto regarded the exemption of the Jews as a ſtrong argument againſt the exiſtence of the plague, were conſtrained to give it up, and to own conviction [3].

All this time the Arabs and Bedoweens continued to ſuffer in a remarkable degree; and the diſtemper increaſed alſo in the northern ſuburbs, as well as diſperſedly within the town. But

the improbability of the plague's affecting the city that year; and, amongſt other arguments in favour of his opinion, he produced ſome of an aſtrological kind, that had great weight with his auditors. He aſſerted alſo, from his own knowledge, that no peſtilential accidents had happened for ſeveral days. About three hours after, I again met with this philoſopher in the ſtreet, who begged I would go with him to his houſe, in order to viſit his ſon, who had been ill ſome time. While I ſtood at the door of the Harem, to give time to the women to veil themſelves, I heard the boy ſhriek ſeveral times as if in pain, and on my entrance could overhear the women entreating him not to ſay any thing of his arm. This circumſtance, joined to the confuſed appearance of the boy's countenance, would have raiſed ſuſpicion, could I have decently ſuſpected the veracity of the father. When I took hold of the left wriſt to examine the pulſe, I happened to draw the arm ſomewhat careleſsly toward me, on which the boy complained bitterly of pain in the armpit. The father joined the women in aſſuring me there was nothing viſible there; but I inſiſted on the part being uncovered, and then found a large bubo, which they confeſſed had appeared the day before. The boy expired in the night.

[3] It is a notion prevalent at Aleppo, that a plague cannot ſubſiſt in the city any conſiderable time, without being imparted to the Jews. Many of that nation are employed as brokers and pedlars, in moſt parts of the town; and numbers, who deal in old cloaths, daily paſs through the ſtreets, purchaſing their wares from all ranks of people. In this manner it is ſuppoſed the diſtemper is tranſported to the Jewiſh diſtrict from the moſt remote quarters, while the intermediate parts of the town may remain untouched. This conjecture is far from appearing improbable; but when it is conſidered that the Arabs and others, who in this year happened to be the firſt victims of the diſtemper, were poſſeſſed of little to be ſold of which even the Jews could make any advantage, it will be eaſily conceived why the plague was not communicated early to the Jews by the uſual channel.

its discovery among the Jews caused the greatest alarm; and, being soon followed by some accidents in the neighbourhood of the European houses, and by the infection of the son of a French watchmaker, the Consul, and most of the gentlemen of that nation, shut up the 16th of May. CHAP. V. 1761. Aleppo. May.

Though the funerals were more numerous in the first week of May than the second, there was less reason to wonder, as many did, at the hurry of the French in shutting up, than that the Europeans, in general, should have continued so long supinely neglectful, considering the increase of the funerals ever since the first week of April. The truth was, that many allowed themselves to be amused by the natives, and were deceived in thinking, that while all remained so quiet in their own district, there certainly must have been some mistake in the intelligence, which asserted the plague to be on the increase. It was not adverted to that from the remote parts of the town, where the disease at that time was said to prevail, there was no more reason to expect a multitude of funerals should pass in the European quarter, than if the deceased had perished at Grand Cairo.

The disease continued to increase in the last fortnight of May; but several accidents being concealed, the English were not alarmed so as to shut up, till one of their cooks, in his return from market, was seized suddenly in his master's house [4].

Upon this accident the Consul, as well as several gentlemen of the factory, who had long before made provision for confinement, and for some time had observed certain precautions, shut up the 28th. Others who had been less alarmed, thinking it was now time to consult their own safety, hastened the necessary preparations, and shut up two days after.

[4] Appendix, Case XVII.

The

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1761.

Aleppo.

May.

The weekly bills of mortality from the 5th of April to the 1ſt of June, ſtood as follows:

Monday, April 6.	1ſt Week	58	
	2d Week	88	
	3d Week	125	
	4th Week	113	381 April.
Monday, May 4.	1ſt Week	171	
	2d Week	139	
	3d Week	177	
	4th Week	290	777 May.

I muſt beg leave at this place to obſerve, that in a country where no regiſters are kept, and where neither the police nor public curioſity beſtow any attention on ſuch matters, an attempt to get any tolerable account of the funerals has many difficulties to encounter with. The fidelity of the perſons employed to collect the accounts muſt often be ſuſpected, and in truth, the taſk, if faithfully executed, is attended with danger. Of theſe difficulties I am ſo ſenſible, that, notwithſtanding the time and expence devoted to the collection, I am ſtill far from regarding the bills of mortality as abſolutely exact; but flatter myſelf only that the errors are not very material [5].

June.

As it was not my intention to expoſe myſelf this year in the ſame manner as the year preceding, I had, in the month of April, prepared a retreat in the houſe of one of the gentlemen of the factory, and accordingly ſhut up about the beginning of June.

On the 6th of June, a prieſt died in the convent of the Terra Santa. He had been obſerved walking on the terrace two or three days before, and the account of his death given out by the

[5] I employed four or five perſons diſpoſed at different ſtations for the Turkiſh funerals, and one perſon on purpoſe for the Chriſtian. Thoſe brought me daily reports of the funerals.

convent

convent carried ſome very ſuſpicious circumſtances of his having died of the plague. This accident, whether peſtilential or not, diſpoſed the Europeans to be more attentive to the rules of confinement.

1761. Aleppo. June.

After the beginning of June, the plague increaſed every where with great rapidity; the burials in the firſt week riſing to 670 from 290, the amount of the laſt weekly bill in May. Before the middle of June, a ſmall proportion of the infected recovered; but from that time the diſeaſe, though equally contagious, was leſs fatal, and therefore though the weekly bills of mortality through the reſt of the month decreaſed, the plague might be reckoned to be in its augment till the beginning of July, at which period it reached its utmoſt height.

June and July.

In the month of July, a ſtill larger proportion of the ſick recovered; in the ſecond week, the contagion as well as the mortality manifeſtly decreaſed; and after the middle of that month, both declined rapidly.

The weekly bills of mortality, from the 1ſt of June to July 27.

	1ſt Week.	2d Week.	3d Week.	4th Week.	1ſt Week.	2d Week.	3d Week,	4th Week.
Turkiſh Burials	629	502	444	553	601	410	443	204
Chriſtian - -	31	33	46	47	88	59	44	28
Jewiſh - -	10	8	15	12	19	14	9	4
	670	543	505	612	708	483	296	236

It may be remarked that the plague was late in reaching the Jews and Chriſtians, and did not ſpread much before the middle of June, when the diſeaſe was leſs fatal than it had been before; ſo that the mortality on the whole was proportionally greater amongſt the Turks. It may be remarked alſo, that the declenſion of the diſtemper among the Jews and Chriſtians was rather by ſlower degrees.

BOOK I. 1761. Aleppo. June and July.

From the time the Europeans entered into confinement, the city began to aſſume a deſert diſmal appearance; the publick khanes were little frequented by the Turkiſh merchants, and totally abandoned by the Chriſtians. The ſtreets and bazaars were thin of people, the greater part of the ſhops, except ſuch as ſupplied the neceſſaries of life, were ſeldom open; and few or no caravans arrived from abroad.

In general, the Turks uſed more precaution for their own preſervation than uſual in the time of former plagues. Many of the higher rank kept much retired in their own houſes, and neither permitted their women to walk abroad, as cuſtomary, nor to receive viſitors indiſcriminately at the harem. Of the Chriſtians, a greater number ſhut up than had ever been known before; and dread of the contagion prevailed even in the lower claſs, ſo univerſally, that it was very difficult to procure perſons to nurſe the ſick. In the interior of the Turkiſh harems (as the women owned to me afterwards) it ſometimes happened that the miſtreſs or daughters of the family found themſelves in their illneſs in a manner deſerted, their ſlaves ſhrinking from attendance. This extreme terror of infection was ſaid to have been unknown formerly among the Turks at Aleppo; and to the precautions they were induced to obſerve this ſeaſon, ſome were inclined to attribute the plague's not ſpreading more extenſively.

The ſituation of the Europeans during the time of confinement was in reality leſs dreadful than might naturally be imagined. The burials obſerved to paſs in their quarter rarely exceeded four or five daily, and of perſons belonging to the law,[6] not above ten or twelve of a certain rank were carried off this year, ſo that neither the lamentation of the women who accompanied

[6] The deaths and funerals of Effendees, or people of the law, and the children of ſuch as are eminent, are announced by a dirge from the minarets performed by ſeveral voices, and at two or more moſques, according to the quality of the deceaſed.

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CHAP. V.

1761. Aleppo. July.

the corpſe to the grave, nor the mournful chanting from the minarets gave much diſturbance in the day time. The ſtillneſs of the night was ſometimes indeed interrupted by the ſhrill conclamations uttered by the women, at the inſtant a perſon of the family expires, and which, of all other alarms, are apt to excite the moſt awful ſympathy and terror; but this happened ſeldom.

The Europeans therefore, though in the middle of an infected city, felt little of the public diſtreſs, and were ſpectators in part only of the horrors of a peſtilence. The attention of the eaſtern police to a ſpeedy interment of the dead, was a protection againſt what is often in the European plagues, one of the moſt ſhocking ſpectacles. A due obſervance of the eſtabliſhed laws of confinement ſecured them againſt the danger by which they were encompaſſed; and they were regularly ſupplied with freſh water, proviſions of all kinds, and the different fruits in ſeaſon. The chief ſubject of complaint was the confinement; which however was ſoon rendered tolerable by habit, falling heavy on ſuch only as had not neceſſary buſineſs ſufficient to employ them, or who unhappily poſſeſſed not the art of deviſing amuſement for leiſure hours.

The plague had begun to decline in the ſecond week of July; towards the end of the month it was every where much diminiſhed, though not altogether in ſo great a degree as the Europeans were given to believe. The uſual period of its termination was now arrived; accidents were become very rare among the Maronite Chriſtians, and it was too haſtily inferred that all the other parts of the city were equally with the Judeda reſtored to a healthy ſtate.

I came abroad from confinement the 29th of July, and, according to my expectation, ſoon found that the diſtemper was very far from having ceaſed. The greater part of the Chriſtians of condition in the Judeda remained ſtill ſhut up in their houſes, and

BOOK I

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did not venture abroad till ten or twelve days after. Some of the Engliſh gentlemen road out for an airing the 1ſt of Auguſt, but none of them, I believe, opened entirely ſooner than the 10th of that month.

Auguſt.

During the firſt fortnight of Auguſt, peſtilential accidents happened within the city, but were more frequent in the ſuburbs. On the 7th the only ſon of an eminent Effendee[7] was infected, which being publickly known, procured credit to ſeveral other reports about the ſame time, that otherwiſe, though true, would no doubt have been contradicted.

The French Conſul, with the gentlemen of that nation, who ſtill remained in confinement, came abroad on the 17th. The Engliſh Conſul, and two or three gentlemen of the factory, thought proper to continue cloſe ſhut up: and what happened ſoon after, ſhowed that their precaution had not been unneceſſary.

About the 20th of Auguſt, the death of ſeveral perſons who had been infected the preceding week, joined to ſome recent accidents of infection, which came to the knowledge of the Europeans, occaſioned alarm. Attempts to concealment were now laid aſide, ſo that for ſome days it was more eaſy to procure accounts of the infected. But what ſerved to compleat the general conſternation of the Chriſtians, was a diſcovery made the 21ſt, that the ſuperior of the Jeſuit's convent, who had been ſick ſeveral days, lay certainly ill of the plague.

The French and Venetian Conſuls immediately ſhut up again, and ſeveral of the merchants of different nations followed the example. They remained in confinement till the 30th, when the manifeſt decreaſe of the diſtemper, in all parts of the city,

[7] The Chilleby Effendee, at that time in the office of Nakeeb, or chief of the Shereefs or Greenheads.

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encouraged them to venture once more abroad. The Engliſh Conſul, and ſuch of the Engliſh gentlemen as had continued all along ſhut up, opened their doors on Monday the 31ſt of Auguſt. CHAP. V. 1761. Aleppo. Auguſt.

The weekly bills of mortality, from the 27th of July to the 31ſt of Auguſt ſtood thus:

	1ſt Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkiſh Burials	70	88	78	84	52
Chriſtian -	29	20	10	16	10
Jewiſh - -	3	2	2	8	4
	102	110	90	108	66

The daily bills of mortality, from the 27th of July to the 31ſt of Auguſt, including the Turkiſh and Chriſtian burials:

	T.	C.		T.	C.		T.	C.		T.	C.		T.	C.
July 27,	13	4	Aug. 3,	8	2	10,	8	2	17,	12	1	24,	8	2
28,	13	5	4,	14	2	11,	8	0	18,	10	2	25,	11	3
29,	11	5	5,	19	6	12,	7	0	19,	14	2	26,	11	0
30,	8	3	6,	7	3	13,	17	2	20,	12	2	27,	9	1
31,	7	2	7,	10	2	14,	12	4	21,	15	3	28,	3	1
Aug. 1,	12	4	8,	14	2	15,	14	1	22,	13	4	29,	6	2
2,	9	3	9,	16	3	16,	12	1	23,	8	2	30,	4	1
	73	26		88	20		78	10		84	16		52	10

From the bills of mortality in the month of July, it appears there was a great decreaſe in the Turkiſh burials after the 12th of that month; and in the laſt week, commencing the 27th and ending the 2d of Auguſt, it appears from the bills now produced, that the burials fell to 73, from 204 the amount of the Turkiſh bill in the preceding week: after which time, till the laſt week of Auguſt, the variation was not conſiderable.

Were an eſtimate therefore to be formed from the weekly bills of mortality, the diſtemper would appear to have continued nearly in

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in the ſame ſtate from the 27th of July to the 24th of Auguſt. But the real ſtate of the contagion cannot be juſtly eſtimated in this manner; becauſe a large proportion of the infected recovered at that time, and it ſometimes happened that the infection ſpread with ſingular fury thoſe days on which the burials were feweſt. To this laſt circumſtance were owing thoſe deceitful calms, by which the people were often tempted to expoſe themſelves, and hence the aſſertions of the plague's having ceaſed, at the very time, perhaps, it was more than uſually active. Inſtances of recent infection were not immediately known to the public, ſometimes not till after ſeveral days, and ſometimes diſcovered only by death; ſuch as recovered, being ſeldom heard of. I was in this manner myſelf deceived more than once, till experience had taught me more caution.

The fluctuation of the funerals appears clearly from the daily bills of mortality, and ſeems to denote the progreſs of the plague to have been irregular and deſultory: nor was this remark leſs applicable to the other ſtages of the plague than to its declenſion. As therefore the burials increaſed on certain days, it is evident there muſt have been certain days on which the infection was propagated in an extraordinary degree; and had it been practicable in ſo extenſive a city to have procured accounts tolerably exact of a larger number of the infected, they might, perhaps, together with the Meteorological Regiſter, have contributed to a diſcovery of the influence of the weather, both in reſpect to the communication of infection and to the termination of the diſeaſe.

Sept. The appearance of the Conſuls in the public ſtreets in September, by giving a ſanction to the opinion of the plague's being over, ſerved in ſome degree to quiet the apprehenſions of the people. But the opinion in reality was ill founded; for inſtances of infection were not only more common in the firſt week of September, but the burials alſo actually increaſed; and as ſe-

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1761. Aleppo. Sept.

veral of thoſe accidents could not be ſuppreſt, they naturally occaſioned ſome alarm.

In the ſecond week of September, the ſeveral European Conſuls had their public audience of a new Baſhaw; a circumſtance that would have more generally inſpired courage had not ſeveral accidents joined at the ſame time to diſturb the public hopes: of thoſe, ſome happened among the Maronites to perſons well known, ſo that they could not be long concealed, and indeed, few attempts were made at this period to hide the diſtemper.

The unexpected continuance of the plague was aſcribed to the cool weather ſucceeding extraordinary rains that had fallen the beginning of the month. But the ſeaſon was now too far advanced to expect much from the influence of hot weather, which was believed to have put a ſtop to the plague in former years. The probability of its continuation till the winter became the ſubject of common converſation; and ſome of the more experienced natives made no ſcruple to declare their fears, that the enſuing year might prove worſe than the former.

There was an increaſe of the funerals in the ſecond week of September, partly owing to the tertian fevers which became more formidable about that time; and it ſhould be obſerved, that a large ſhare of the mortality in the following months is to be aſcribed to diſeaſes diſtinct from the plague. In the third week the diſtemper ſuffered little alteration, but ſeemed to decreaſe in the fourth week, at leaſt I met with fewer recent accidents. The burials indeed increaſed, particularly among the Chriſtians, as will appear from the bills for September.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials	66	80	55	64
Chriſtians - -	7	14	8	14
Jewiſh - -	3	4	3	0
	76	98	66	78

BOOK I.

Aleppo. 1761. October

The plague continued nearly in the ſame ſtate from the laſt week of September till the 12th of October, after which it declined conſiderably. About the 19th it again increaſed, and continued with little variation till the beginning of the following month.

About the beginning of October died an Italian clerk, in the ſurvice of one of the Engliſh gentlemen; and on the 25th the French Conſul's family was greatly alarmed, as well as many of the European gentlemen who had lately frequented the houſe, by a diſcovery that the wife of the French Chaux, who dwelt in the conſulary houſe, had got the plague. The hopes lately entertained by the Europeans of the plague being about to ceaſe, were much damped by this unfortunate accident; for though it was not pretended the diſtemper no longer exiſted, yet few of the late accidents were generally known, and the calm obſervable in the Judeda and in the quarter of the Jews, led now, as it had done at the beginning, to very erroneous notions of the ſtate of the plague. To this may be added, that the fear of infection had perhaps been diminiſhed by time, and unleſs excited by ſome nearly connected object, cauſed little obſtruction either to buſineſs or pleaſure, ſo that the Europeans, as well as the natives, went about every where with very little reſerve.

The weekly bills of mortality, from the 28th of September to the 2d of November.

	1ſt Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkiſh Burials	71	87	53	94	130
Chriſtian -	14	16	11	13	24
Jewiſh - -	0	3	2	3	2
	85	106	66	110	156

The increaſe of the burials in the firſt fortnight of October was undoubtedly owing, in ſome degree, to the autumnal diſeaſes, more eſpecially to malignant irregular tertians, which

CHAP. V.

were predominant at this time, and, in their beginning, a good deal reſembled the plague; but in the laſt week, it was too conſiderable to be aſcribed to the ſame cauſe; nor could it be aſcribed to the increaſe of the contagion, ſuppoſing the ſame proportion of the infected to have recovered as in the former months. In order to account for this it muſt be obſerved, that the plague, at this period, had undergone a remarkable change. Ever ſince the beginning of October, the proportion of thoſe who died had been greater than at any time ſince the month of June, and after the middle of October, hardly one-third of the infected recovered. The diſeaſe began to aſſume its moſt malignant forms, and ſometimes proved fatal in leſs than forty hours.

1761. Aleppo. Oct.

In this malignant ſtate, with little or no variation, the plague continued the two ſucceeding months. About the middle of November, it ſeemed to me to decreaſe; but from the beginning of the fourth week till the 20th of December, it certainly increaſed, particularly among the Chriſtians. The accidents among the Turks, in the firſt fortnight of December, were chiefly in the ſuburbs. After the middle of the month, the weather was for ſome days ſerene and froſty, a change which produced no ſudden alteration in the diſtemper. A few days before Chriſtmas, however, it appeared ſo conſiderably diminiſhed, that I ventured to return to the ſociety of the Europeans, from which I had withdrawn myſelf ever ſince my coming out from confinement. But this flattering interval was of ſhort duration; the plague reviving towards the end of the month, the Chriſtian feſtival of the new year was ſoon interrupted by freſh alarms.

Nov. and Dec.

The weekly bills of mortality, from the 2d of November to the 4th of January.

Burials. Nov.	1ſt W.	2d W.	3d W.	4th W.	Dec. 1ſt W.	2d W.	3d W.	4th W.	5th W.
Turkiſh	120	90	108	149	134	132	146	87	84
Chriſtian	14	21	12	16	29	21	18	15	13
Jewiſh	3	5	4	2	3	3	2	3	2
	137	116	124	167	166	156	166	105	99

BOOK I.

1761. Aleppo. Dec.

It has been already obſerved, that a conſiderable ſhare of the mortality throughout the winter, was produced by diſeaſes diſtinct from the plague, more eſpecially to anomalous tertian fevers. To theſe in November was joined the ſmall-pox, which carried off numbers of the children. The decreaſe of the burials obſervable in the two laſt weeks of December, was no doubt owing, in part, to the favourable alteration which at this time took place in theſe diſeaſes; but the plague muſt alſo have greatly abated, for in its nature it was at this period more fatal than in the autumn; very few recovered, and ſome were ſaid to periſh within twenty-four hours or leſs, from the time they were themſelves ſenſible of indiſpoſition.

In the bills of mortality, I have not preſumed to diſtinguiſh the peſtilential burials; nor were my accounts of the infected ſufficiently extenſive to form an exact eſtimate of the degree in which the plague had ſubſiſted ſince the beginning of the winter. But from what I had occaſion myſelf to obſerve, and from accounts I could depend on, it was moſt certainly in a degree much more conſiderable than was generally believed.

Although a few only of the peſtilential accidents, in proportion to thoſe that really happened, were publickly talked of, the natives all agreed in declaring the plague had never before been known at Aleppo ſo formidable in the winter: and many went ſo far as to affirm, that it was the firſt inſtance of the plague's having been ever known at all that ſeaſon. But it is to be regretted, that their accuracy in ſuch matters can be ſo little relied on. What had happened in the year 1742 was entirely forgotten; and the accidents in the preſent winter, however ſtrongly marked, will probably in the courſe of a few years more be obliterated from the memory of the people of Aleppo, leaving them, in ſpight of experience, as tenacious as before of a traditionary opinion, that their city ſtands ſecure from the plague in the winter.

CHAP. VI.

CHAP. VI.

Hiſtorical Journal of the Plague at Aleppo, Anno 1762.

1762. Aleppo.

THE unexpected continuance of the plague through the various changes of weather in the autumn, as well as hitherto in the winter, leaving little room to expect its ſpeedy termination, ſpread a gloom over the proſpects of the new year. The dread of infection made little impreſſion, the danger being conſidered as yet at a diſtance; but the ſtagnation of trade had for a long while been ſeverely felt, and the conſequent interruption of the numerous manufactures of the city had reduced the induſtrious lower order of inhabitants to great diſtreſs.

About this time the birth of a Prince, and heir to the empire, gave occaſion to a feſtival of ſeven days, which, engaging the public attention to new objects, called it off for a ſhort while from melancholy reflections. This feſtival is termed a Zeeny, from the decorations and illuminations employed in its celebration, and exhibits the Mohammedans in a point of view very different from what they are ſeen at other times. The perſons of diſtinction appear diveſted of their habitual ſolemnity; while their inferiors, encouraged in public by an air of condeſcenſion to which they have not been accuſtomed, lay aſide the ſervile humble demeanor ſo ſtrongly expreſſive of abject dependance.

The crowds in the ſtreets and bazaars, both day and night, are much greater than at other feſtivals, or in the Ramadan; the women ſtroll about every where from morning till-ſun ſet, and multitudes of both ſexes, led by curioſity, reſort to town from the villages. People of all ranks, under the ſanction of an imperial mandate to rejoice, give looſe to frolic and revelry, and rival one another in endeavouring to render the ſpectacle brilliant by a ſplendid diſplay of lamps and varied decorations in the ſhops and khanes.

BOOK I. 1762. Aleppo. January.

A concurrence of circumſtances ſo favourable to the propagation of infection was ill ſuited to the times; but amid the revels of the Zeeny the deſolation impending over the city was forgotten. Little did the heedleſs populace think how ſoon to theſe ſcenes of rout and jollity were to ſucceed the funereal conclamations of the widow and orphan; nor what numbers of the aſſembled multitude were, in the ſhort ſpace of a few weeks, to be involved in the moſt ſevere of human calamities. Happier, perhaps, in the want of foreſight, reflections of this kind aroſe not to ſadden the hours of feſtivity; for, reſtrained by ſuperſtitious prejudice, they could not, by preventing ſo dangerous a concourſe, have adopted the proper means for their own preſervation, and the looking forward could only have ſerved to foreſtall the date of grief.

During the firſt fortnight of January, the plague remained nearly in the ſame ſtate as in December. A good deal of ſnow fell on the 7th and 8th of the month, after which a froſt ſet in that continued till the 19th. It was generally expected that this alteration of weather would have greatly contributed to extinguiſh any remaining ſparks of contagion; but although little was heard of the plague during the time of the Zeeny, accidents nevertheleſs happened every day. In the third week of January the diſtemper certainly abated, and there was a conſiderable decreaſe in the burials; but in the laſt week it ſeemed again to encreaſe in the diſtant ſuburbs, and ſeveral were infected in the interior of the city. It ſhould be remarked that from the beginning of the year mortal diſtempers, diſtinct from the plague, had become very rare.

The weekly bills of mortality from January 1 to February 1.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials -	126	80	42	49
Chriſtian - -	20	17	5	13
Jewiſh - - -	3	3	3	4
	149	100	50	66 Total 365

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1762.

Aleppo.

Feb.

Whatever ſhare the alteration of weather might be ſuppoſed to have in producing the abatement of the diſtemper obſervable after the middle of January, it ſeemed to have little influence among the Arabs in the vicinity of Aleppo. On the weſt ſide of the city, without Priſon Gate, among ſome ancient quarries, are a number of large grottos or excavations, which occaſionally, in the winter, afford ſhelter to the Bedoweens, who at other times are encamped under the walls of the town. The plague broke out among the Bedoweens inhabiting theſe grottos about the middle of January, and carried off three or four every day. Still earlier, that is, about the end of December, it had reached ſome other caves at a greater diſtance from town, beyond the Fountain of Fiſhes, in which nearly a hundred Arab families had taken up their winter habitation; and there it raged violently all the month of January. In thoſe places the cold weather ſeemed to have no more ſalutary influence on the contagion than in the circumjacent villages, all of which ſuffered ſeverely about the ſame time.

March.

The diſtemper continued variably increaſing and decreaſing through February. In March its advance, though not rapid, was more perceptible than in February, particularly towards the end of the month. An Armenian prieſt, who had attended the infected of that nation in the two preceding years, died at this time.

Bills of mortality for the month of February.

	1ſt Week.	2d Week.	3d Week.	4th Week.	
Turkiſh Burials	29	50	71	89	
Chriſtian - -	13	13	11	19	
Jewiſh - -	3	1	0	0	
	45	64	82	108	Total 299

Bills

BOOK I.

Bills of mortality from the 1ſt of March to the 5th of April.

		1ſt Week.	2d Week.	3d Week.	4th Week.	5th Week.
Aleppo.	Turkiſh Burials	90	98	82	128	133
1762.	Chriſtian -	13	14	19	35	38
March.	Jewiſh - -	1	0	3	1	2
		104	112	104	164	173

total 657

April. About the beginning of April, died a young lady of French extraction [1], and ſome other accidents alſo within the city, happened in ſome of the khanes. Two or three Jews were infected about the ſame time, but it was not generally known. In the ſuburbs, the diſtemper continued nearly in the ſame ſtate till the ſecond week, when it certainly abated in the Judeda.

The Maronites, encouraged by this alteration in their quarter, entered chearfully on the 11th into their feaſt of Eaſter. They had forgotten already how often they had been deceived by pauſes of this kind; nor could they be perſwaded to omit the uſual interchange of ceremonial viſits. The plague, it was ſaid, was about to ceaſe entirely; or, at leaſt, that it had ſpent its force, and would make no great progreſs; becauſe it ſeemed not to poſſeſs its uſual contagious property. In proof of this laſt circumſtance it was urged, that the uncommon intercourſe of all kinds of people, during the late Zeeny, had been productive of no ill conſequence; nor in the month of Ramadan, although the weather was become warmer, had the diſtemper ſpread to ſuch a degree as might have been expected.

The experience of the two preceding years was againſt this reaſoning, however plauſible in other reſpects. But the confidence with which the Maronites talked on the ſubject, together with their repreſentation of the ſtate of the Judeda, rendered

[1] Appendix, Caſe XXVII.

ſuch

CHAP. VI.

1762. Aleppo. April.

ſuch of the Europeans, as relied on them for intelligence, leſs diſpoſed to make early preparation for ſhutting up.

About the middle of the month, it was diſcovered that a number of the Chriſtians had been infected during the holidays, and, what ſtill more increaſed the general confuſion, that many had paid viſits, on account of the feaſt, at the houſes of the infected, and had even communicated freely with the ſick: the diſquietude occaſioned by ſuch a diſcovery may eaſily be imagined; but it may be doubted, whether on future occaſions the Chriſtians will profit by the example, ſo as to avoid the incurring unneceſſary riſk by adherence to ceremonies which ought undoubtedly, at ſuch times to be laid aſide.

The diſtemper had not only increaſed in the Judeda, but within the city alſo; and ſeveral accidents had happened near to the European quarter. It was becoming every day more contagious; and I met with ſeveral inſtances of the ſick dying more ſuddenly than had been obſerved hitherto in the ſpring. Information of theſe circumſtances was given to the Conſul and factory, on the 18th of the month, and I gave it as my opinion, that the time was come to have every thing in readineſs for ſhutting up at a ſhort warning.

In the latter part of April, the diſtemper ſeemed to abate among the Turks and Jews, but increaſed in the Judeda. This laſt circumſtance being well known, ſhould have had more influence on the Europeans in ſhutting up than it had, conſidering the conſtant intercourſe with that ſuburb, by means of their dependants, which, in reality, expoſed them to more riſk than if the diſtemper, inconſiderable in the Judeda, had reigned within the city, in diſtricts with which the Europeans have little communication, and whoſe inhabitants have no pretence of buſineſs for entering the European houſes.

In

BOOK I.

1762. Aleppo. April.

In the mean while, none of the Europeans thought proper as yet to ſhut up. The Conſuls indeed had for ſometime before forbidden the admiſſion of perſons indiſcriminately; and ſome of the merchants, while they kept pretty much retired themſelves, had a watchful eye over their ſervants; but many uſed little precaution whatever, though it is not to be doubted, that a ſingle accident in one of the merchant's houſes, would, as in the preceding year, have put the whole ſettlement in confuſion.

But ſuch of the Europeans as were ſtrongly averſe to confinement, or to whom, on account of their private affairs, it was peculiarly inconvenient, were more eaſily led to give credit to common report, which repreſented the diſtemper as hitherto inconſiderable in the city, and as having abated in the Judeda. For two or three days indeed before the Turkiſh feaſt, the diſeaſe certainly appeared to abate in the Judeda, while the decreaſe in the Turkiſh funerals indicated alſo a ſimilar alteration in the city.

The bills of mortality from the 5th of April to the 3d of May.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials	136	198	161	216
Chriſtian -	29	41	42	40
Jewiſh - -	0	1	2	1
	165	240	205	257 Total 869

It appears from the bills of mortality, that the funerals in the ſecond week of April roſe to 240, which was leſs by 60, than at the time the Europeans ſhut up the preceding year, and that in the very next week they fell to 205. But the danger of infection, as it reſpects the Europeans, as hath already been remarked, ought to be eſtimated rather from the parts of the town where the plague ſubſiſts, than from the number of the burials; and in this view the time for entering into confinement was certainly arrived.

On

CHAP. VI.

1762. Aleppo. May.

On Monday the 26th of April, the Engliſh Conſul ſhut up. Of the gentlemen of the factory, one had ſhut up ſome days before. Some of the others ſhut up on the firſt of May, at the ſame time with the French Conſul, and the greater part of the gentlemen of that nation. None of the European houſes, ſo far as I know, remained open after the 7th of May.

After the middle of May, the diſtemper manifeſtly increaſed every where: it had got into the houſes of ſeveral Turks of higher rank, and in ſeveral of the merchants houſes it made terrible havock.

Towards the end of the month, orders were publiſhed by the Cady, for reducing the number of ſheihs who at funerals precede the corpſe, and chant all the way to the grave; as alſo to forbid the women, who attend the proceſſion, from ſhrieking in the ſtreets, as cuſtomary on thoſe occaſions. The intention of theſe regulations was to prevent the ſick being diſturbed, and the publick being alarmed by the noiſe of frequent burials. The Cady's ordnance was reſpected by the ſheihs, but diſregarded by the women, who continued to attend the funerals as uſual.

Another ordinance of the Cady's was obeyed more punctually. The criers from the ſeveral minarets were ordered at each of the ſtated times of prayer, before the cuſtomary invitation, to chant nine times a certain verſe from the Koran, which had it ſeems been diſcovered to be of ſovereign efficacy againſt the plague. It was moreover enjoined publickly to all Muſſelmen to be religiouſly punctual in their devotions; and negligence in that reſpect was threatened with immediate puniſhment. Theſe regulations were new to the people of Aleppo. The khanes and the bazaars began about this time to be deſerted, as in the former year.

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BOOK I.

1762. Aleppo. May.

The weekly bills of mortality from the 3d to the 31ſt of May.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials -	255	194	233	502
Chriſtian - -	45	54	55	61
Jewiſh - - -	3	6	8	16
	303	254	296	579 Total 1432

I continued to make my uſual round of viſits till the 8th of May, and then retired to my own houſe, in order to perform a quarantine, having been too converſant with the infected to think of going immediately into the gentleman's houſe, with whom I propoſed to ſhut up. At the expiration of a fortnight I quitted my own houſe in the night, and went to the deſtined place of confinement, which was not a hundred paces diſtant, on the oppoſite ſide of the ſtreet. The preparation made long before for this event, had rendered it unneceſſary to tranſport any thing along with me; and on my firſt entrance, before going up ſtairs, I remained for ſometime expoſed to the fumes of ſulphur.

Such of the Europeans, whoſe houſes are connected by means of the terraces, ſometimes viſit one another during the ſhutting up on account of the plague; and in that manner ſeveral of the French gentlemen, in the beginning of the preſent ſeaſon, had viſited daily at the houſe of their Conſul. A communication of this kind can only be juſtified on a ſuppoſition, that all the parties are ſtrictly ſhut up, and that there is no riſk of meeting in the paſſage with perſons who are not. About the middle of the month, an accident happened which put an effectual ſtop to this intercourſe, and for ſome time convinced the Europeans of the impropriety of it.

In paſſing to the conſulary houſe, it was neceſſary to croſs the terrace of a Venetian Jew-merchant, who remained abroad after

after the other Europeans had ſhut up, and at length entered into confinement in his houſe in the great khane, with a family, relations included, conſiſting of between thirty and forty perſons. With this merchant, who appeared every evening upon his terrace, the French gentlemen converſed familiarly, not only after he had ſhut up his doors, but even before the family removed from their uſual reſidence in the Jew's quarter, and entered into confinement. The family had been ſhut up about eight days, when one of the ladies being taken ill, a Turkiſh barber was clandeſtinely introduced into the houſe to bleed her, and the ſame evening, it being diſcovered ſhe had got the plague, all abandoned the houſe in hurry and confuſion, except the huſband and two or three attendants. The lady recovered, and probably had been infected before ſhutting up[2].

1762. Aleppo. May.

In the firſt Week of June, ſundry caravans ſet out for different places, affording an opportunity to the ſtrangers from abroad, who uſually lodge in the public khanes, of flying from the city; but of theſe fugitives ſome were already infected. About the ſame time a number of Armenian bakers were ſeized with the plague. Theſe people lived diſperſedly in the city, and in the courſe of the ſubſequent fortnight between thirty and forty of them applied to me for advice[3].

June.

[2] Of all the eaſtern people, the Jews appear to have the ſtrongeſt dread of the plague. Their religion, it is ſaid, forbids concealment of the diſtemper; and, when diſcovered, encourages the ſeeking ſecurity in flight.

[3] During the time of my confinement, I gave all the aſſiſtance in my power to the infected, and had, for that purpoſe, made proper proviſion before the ſhutting up. The houſe where I lodged was ſituated on the weſt ſide of the great khane, towards which there was a range of windows about fifteen feet from the pavement. Such of the ſick as were able to walk, came themſelves to the khane; others ſent their aſſiſtants, by whom I was informed of the progreſs of their illneſs. I ſpoke to them from one of the windows, and the medicines ordered were let down in a copper bucket with an iron chain, ſuch as was uſed for taking in proviſions. A ſtair that led to the Carmalite Convent paſt near one of our windows, by which means I brought ſuch of the infected, whoſe eruptions I wanted to examine within a ſmaller diſtance, that is, within four or five feet.

BOOK I.

1762. Aleppo. June.

In the ſecond week of June the Chriſtian burials diminiſhed, but the contagion nevertheleſs ſpread among the Chriſtians after the 10th, which produced an increaſe in the burials early in the week following. It ſpread alſo among the Turks and the Jews.

The plague continued to increaſe univerſally in the third week. The higher diſtricts of the Gilloom and the Akaby, and parts adjacent to the European khanes, which hitherto had remained remarkably free, began to be involved in the common calamity. Funerals in the day-time paſt more frequently than ever, and, in the nights, the ſhrill voices of the women deploring their departed friends, were heard from all hands. The dirges from the minarets were alſo heard more frequently than in the former year; and the ſtreets and bazaars became more and more deſerted.

Accidents at this time happened in ſeveral of the Jewiſh families, who had ſhut up in the preceding week. In ſome houſes they appeared to be owing to the neglect of due precaution; in others, the perſons had received the infection before the ſhutting up; but ſuch accidents were confined to the middle rank of Jews, who had protracted their ſtay abroad till after the 15th of this month.

The plague ſtill continued to increaſe through the fourth week of June. I heard of ten or twelve inſtances where the ſick were thought to have periſhed in ten hours after ſeizure; but, in general, the diſtemper preſerved its uſual period. A large proportion of the infected continued, as before, to recover.

In the laſt week, (terminating the 4th of July) the diſtemper manifeſtly increaſed in the centre of the city, as well as in thoſe diſtricts lying towards the weſt and to the north. In the ſtreets near Damaſcus Gate, and to the ſouth, it ſeemed, from the

daily bills of mortality, to have rather abated: but it was in this week the plague may be ſaid, in general, to have arrived at its greateſt height; for although the Turkiſh burials did not diminiſh conſiderably till the 7th of July, yet thoſe who died muſt be ſuppoſed to have been taken ill ſome days before, which will bring them in reſpect to the time of infection to belong properly to the laſt week of June.

1762. Aleppo. June.

Three Armenian Prieſts were taken in this week; but, what was more remarkable, a lay-brother was taken ill in the Jeſuit Convent, which had been ſhut up ſince the beginning of May. He was the perſon employed in receiving proviſions, and, it was ſaid, had caught the infection from a man of whom he had purchaſed ſome fiſh. It was the more probable that he had been guilty of ſome neglect, as none of the ſervants in the other European houſes, employed in the like offices, were infected.

Towards the end of June, the plague was raging in many Turkiſh houſes of diſtinction[4]. There were many inſtances reported of perſons dying in leſs than twenty-four hours.

The weekly bills of mortality from the 31ſt of May to the 5th of July.

	1ſt Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkiſh Burials	696	774	1029	1067	1249
Chriſtian - -	92	75	141	156	175
Jewiſh - -	22	25	38	50	48
	710	874	1208	1273	1472

Total 5537

The common accounts of the Turkiſh burials were, in general, much exaggerated, being made to amount on certain days to five, ſix, even to eight hundred. The Chriſtian burials were alſo,

[4] In the harems of the Cady, the Chillibee Effendee, Omar Effendee, Seyd Haſſan Hamuey, &c.

in

BOOK I. 1762. Aleppo. June.

in the European quarter, often repreſented to be double the real number. I have already declared that I do not look on my own accounts to be ſtrictly exact; but it ſeems highly probable, that the mortality in former plagues, as in the preſent year, had been magnified much beyond the truth. There is no reaſon to think the people of thoſe times were more accurate in obſerving, or leſs given to exaggeration than their ſucceſſors; and I have heard it affirmed by ſeveral of the inhabitants of Aleppo, that in the year 1743, the Chriſtian burials amounted on ſome days to eighty or one hundred: an aſſertion, which from good authority, appears to be erroneous[5].

We come now to that period, when the diſtemper univerſally began to abate; and, in order to ſhow more exactly the manner of its declenſion, I ſhall ſubjoin an extract from the daily bills of mortality.

Daily bills of mortality from the 5th July to Auguſt 2.

		Turkiſh.	Chriſt.	Jewiſh.			Turkiſh.	Chriſt.	Jewiſh.
July	5,	203	19	3		19,	64	12	2
	6,	154	25	3		20,	44	9	2
	7,	113	24	5		21,	45	10	1
	8,	96	25	5		22,	44	9	2
	9,	89	16	2		23,	33	7	2
	10,	109	15	0		24,	37	11	0
	11,	69—833	14—138	9—27		25,	33—300	9—67	3—12
	12,	97	13	1		26,	32	5	1
	13,	75	10	0		27,	32	10	3
	14,	77	14	0		28,	26	8	3
	15,	49	6	3		29,	28	3	1
	16,	46	7	2		30,	20	3	1
	17,	35	6	0		31,	21	4	0
	18,	51—430	11—67	3—9	Aug.	1,	24—183	7—40	0—9

[5] "Our liſt of the Chriſtians was tolerably exact, and notwithſtanding many of "them were gone out of the city, and the reſt, who could afford it, were ſhut up, "though not in the moſt regular way, their burials amounted from twenty to "thirty, and ſometimes thirty-four a day." Natural Hiſt. of Aleppo, p. 198.

In

CHAP. VI.

1762. Aleppo. July.

In the firſt week of July, commencing the 5th, the Turkiſh burials decreaſed one-third, that is, they fell from 1249, the amount of the laſt weekly bill in June, to 833. But the declenſion of the plague in the ſecond week was ſtill more rapid; for the burials fell to 430.

Towards the end of the third week in July, the diſtemper had abated ſo conſiderably, that it was repreſented by ſome as being in a manner entirely over. This, which was intended to encourage the Europeans to come out from confinement, failed in ſucceſs; for accidents were as yet too frequent, and often too near the European quarter, to admit of ſuppreſſion. Two or three of the Europeans, indeed, rode out for an airing this week; but the reſt, as well as the Chriſtians, of condition in the Judeda, remained cloſe ſhut up.

In the mean while, the ſpirits of the people began to revive, and the ſtreets and bazaars to be more frequented. In the preceding week ſeveral Jews of inferior rank, who had been ſhut up, ventured abroad, and in this a good many Chriſtians came alſo out from confinement.

In the fourth week died Padre Carlo of the Terra Santa Convent. He had voluntarily devoted himſelf to an attendance on the infected ever ſince the ſpring of 1760, and had indeed expoſed himſelf with uncommon reſolution in the exerciſe of the moſt humane as well as moſt dangerous offices about the ſick. I often had occaſion to meet with him in the courſe of my viſits, and have ſometimes found him, when the ordinary attendants were not in the way, employed in ſupporting the ſick in his arms, while they ſat up in bed to take their medicines.

It may be remarked, that the decreaſe of the diſtemper in the laſt fortnight of July was proportionally more conſiderable among the Turks than among either the Chriſtians or Jews. The difference

BOOK I.

1762. Aleppo. July.

ference might perhaps in ſome meaſure be owing to the indiſcretion of ſuch as had been ſhut up, and who immediately on coming abroad, from the notion of the diſtemper having ceaſed, went every where about with little or no precaution: nay, ſome there were ſo highly imprudent as to go to the public baths, although they knew at the ſame time it was the general practice to carry thither the convaleſcents from the plague.

After the middle of July, I heard of none of the ſick who died in leſs than three days illneſs, but it was not obſerved at this period that a larger proportion of the infected recovered than had done in the firſt fortnight.

The weekly bills of mortality from the 5th of July to the 2d of Auguſt.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials	833	430	300	183
Chriſtian -	138	67	67	40
Jewiſh - -	27	9	12	9
	998	506	379	232

At the time the European Conſuls ſhut up in the month of May, the weekly bills of mortality amounted to 257, of which 40 were Chriſtian burials. In the week immediately ſucceeding, when all the Europeans thought proper to ſhut up, the burials had encreaſed to 307. From this account it would appear, that the diſtemper was in a lower degree towards the end of July than for ſome time before the Franks entered into confinement, and conſequently, were nothing elſe to be taken into conſideration, there ſeemed to be the ſame reaſon for opening at this period, that was urged for not ſhutting up earlier in the ſpring.

But on the ſuppoſition of the plague being equally contagious in the ſpring and in the autumn, reaſons might be aſſigned for the

the danger of infection being greater in the latter ſeaſon than in the former; and further, that the riſk in being expoſed does by no means decreaſe in proportion to the diminution of the burials. CHAP. VI. 1762. Aleppo. July.

It was, however, in all probability leſs owing to minute inveſtigation of this point, that the Europeans determined to remain ſtill in confinement, than to the remembrance of what had happened the year before. It was thought more eligible to have patience for a few days longer, than to run the hazard of being again obliged to ſhut up a ſecond time.

Tertian fevers began to be frequent in July, as alſo another fever, which was repreſented to me as being of the malignant kind, diſtinct from the plague; but which, on viſiting the ſick upon my coming out of confinement, I found to be one of the irregular ſpecies allied to the tertian tribe.

As to the plague, it was very much diminiſhed. Some accidents came to be known the firſt week of Auguſt, which had happened the week before; but no freſh inſtances were heard of, and moſt of the Chriſtians of the Judeda came abroad from confinement. Auguſt.

In the ſecond week the diſtemper was reduced ſo low, that in the ſtile of the Levant it might have been ſaid to be over: nevertheleſs accidents came to be publickly known, which ſhowed it had not as yet abſolutely ceaſed.

The Engliſh gentlemen, one or two excepted, opened their houſes entirely in this week. The Conſul opened a few days after: but the French Conſul, with the greater part of that nation, remained ſhut up till the 20th.

Through the latter fortnight of Auguſt, the plague daily diminiſhed. The burials were fewer, by the bills of mortality,

BOOK I.

than they had been ſince the middle of February; and towards the latter end of the month new inſtances of infection became exceedingly rare.

Aleppo. 1762. Auguſt.

The weekly bills of mortality from the 2d to the 30th of Auguſt.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials	107	89	60	58
Chriſtian -	26	17	10	10
Jewiſh - -	3	6	1	0
	136	112	71	68 Total 387

It was currently reported in the European quarter of the city, about the beginning of September, that there had been no peſtilential accidents whatever for many days. In other parts the Turks talked leſs confidently on the ſubject, and were nearer the truth when they aſſerted, that though the plague had not totally ceaſed, it was but very rarely met with.

The fever before-mentioned had not only ſpread, but was become more fatal; and being attended by violent vomiting and other formidable ſymptoms, was ſometimes miſtaken for the plague. The detection of errors of this kind furniſhed, as uſual, a plauſible argument againſt other reports, which in the firſt week of September happened really to be true. The Turk waſhers of the dead aſſured me, that on moſt days they ſtill met with infected bodies; which I was more inclined to believe from what I had occaſion to ſee myſelf.

It ſhould be remarked here, that from the middle of Auguſt a very ſmall proportion of the infected recovered; which was a proof, compared with the ſtate of the burials, of the decreaſe of the plague, as a ſhare of the mortality in that period was to be attributed to the autumnal diſeaſes.

In

In the laſt fortnight of September (ending the 26th) I had occaſion to meet only with two peſtilential accidents, one of which was a Turk who had been ſeized on the 5th of the month; the other, a woman who was taken on the 16th. Several others were talked of, but none after the 20th of September, which I ſaw reaſon to think were true. CHAP. VI. 1762. Aleppo. Sept.

The weekly bills of mortality from the 30th of Auguſt to the 27th of September.

	1ſt Week.	2d Week.	3d Week.	4th Week.
Turkiſh Burials	56	35	36	39
Chriſtian - -	9	7	10	29
Jewiſh - - -	1	0	2	0
	66	42	48	68 Total 224

The increaſe of the Chriſtian burials obſervable in the laſt week of September, might, perhaps, be partly owing to the plague, although I happened to ſee none of the infected. In the week immediately following, the burials again were reduced to nine or ten, in which ſtate they continued till November. The weekly Turkiſh burials continued alſo as in the fourth week of September. After the 10th of November, the autumnal diſeaſes abating, the burials univerſally decreaſed.

Thus ended the plague at Aleppo. It had begun to abate early in July; declined rapidly after the middle of that month; and towards the middle of Auguſt was ſo much diminiſhed, that it was ſaid to have then finiſhed. It continued, however, as hath been ſhown, till the third week of September, and, ſtill decreaſing, towards the latter end of that month totally diſappeared.

I was indeed to place the termination of the plague in the latter part of September, from the not having met, in an extenſive practice among the natives of all ranks, with any peſ-

BOOK I.

1762. Aleppo. Sept.

tilential accidents during the three ſubſequent months. There were not wanting, however, many reports of perſons dying of the plague, and ſome of them circulated with great confidence. I was at the pains to make particular enquiry into ſeveral of the inſtances that had been ſpecified, and in reſpect of all ſuch, found the reports had ariſen from a miſtake in the nature of the diſeaſe. That other reports aroſe from the like cauſe, I more readily believed, becauſe the buriers of the dead aſſured me, they met no longer with dead bodies which bore the marks of infection.

But it required ſome time to free the people of Aleppo entirely from their fears. Through the whole of the winter, ſudden deaths were ſometimes regarded as ſuſpicious, and in moſt acute diſcaſes anomalous ſymptoms were apt to raiſe alarm. Apprehenſions of this kind ſubſiſted in ſome degree till the month of March, in the following year, when perfect tranquillity was reſtored to the city.

From the foregoing narrative, it would appear that the progreſs of the plague in its commencement is much the ſame in the ſeveral parts of the Levant, as in the cities of Europe. That is, it advances ſlowly, fluctuating, perhaps, for two or three weeks; that the diſeaſe itſelf, though, at that period it generally proves fatal, is very often unattended by its characteriſtic eruptions; and that the attendants on the ſick often eſcape infection. Theſe laſt two circumſtances are productive of ſerious conſequences; the nature of the diſtemper comes to be doubted and diſputed, and the means of preſervation, in waiting the deciſion, are procraſtinated till too late.

When the commercial cities of Europe have happened to be viſited by the plague, it has been too often the practice to conceal the diſtemper, under different names, as long as poſſible. In the Levant this practice is univerſal; and indeed, in thoſe countries

countries there are fewer reaſons for making an early diſcovery. The bulk of the people, who are reſtrained by religious prejudices from employing the European methods of preſervation, can reap no advantage from ſuch a diſcovery; and it becomes the general intereſt of the natives to conceal every thing from the Europeans that might haſten their ſhutting up, or prolong their confinement. Examples of this kind have been repeatedly given in the narrative; as they concern no leſs ſpeculations on quarantine and bills of health in Britain, than the ſafety of Europeans eſtabliſhed in Turkey.

The progreſs of the plague, from the time it manifeſtly increaſes, is nearly ſimilar in different places of the Levant, though in the periods of its termination a conſiderable variation is remarked, not only in different places, but in the ſame place in different years. In all, the increaſe and decreaſe of the diſtemper are always rapid, and in general it terminates earlier at Grand Cairo, than on the coaſt of Syria or at Aleppo.

It is remarkable both in Syria and Cyprus, that in the latter part of the autumn, in the winter, and early in the ſpring, although the plague had either ceaſed or greatly declined in the towns, it ſometimes continued its ravages in the villages in the adjacent plains, as well as in the mountains, and that even during ſevere froſt.

The villages appeared to ſuffer in a ſingular degree, owing, perhaps, to the ſtructure of the huts and cottages, which are ſmall, with few or no windows, and ſtand crouded together. In this they reſemble the Keiſarias within the city, which are inhabited by the lower claſs of people, and in which the contagion ſpreads alſo with great fury.

The inhabitants of the city, of the ſame claſs, but who live in diſtricts where the houſes are leſs connected, ſuffered more than

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than the middling claſs, poſſeſſing more airy habitations, but leſs than the keiſarias. The people of rank, or in higher offices, notwithſtanding the promiſcuous crouds frequenting their palaces, ſuffered leaſt of all. Neither the Governor of the city, the Cady, nor the Nakeeb, and very few of the Agas of ſuperior rank, were themſelves infected, though the plague had penetrated into moſt of their harems, and many of the pages and other attendants without doors, were carried off by it. In theſe great harems, however, the contagion ſeldom ſpread much; of, perhaps, above forty females, not more than four or five being infected. When particular circumſtances are attended to, what has been now ſaid will appear leſs ſurpriſing.

The ſeraglios, or palaces of the great men, are grand, ſpacious buildings, conſtructed on a plan which, in general, is well adapted to the climate. The harem, or quarter allotted to the women, conſiſts of a large area, partly paved with marble and partly decorated with ſhrubberies, flower plots, and fountains. The area is ſurrounded by the ladies apartments, which, for the moſt part, have lofty ceilings, are kept extremely neat, and by means of large doors and windows towards the area, and ventilators from above, are ſufficiently cool and airy. On the ſouth ſide of the area, there is an open receſs or alcove, conſiſting of one arch, deep, wide, extremely lofty, and, by an awning above, protected from the ſun. Jets, ſpouting from the centre of the alcove, or from a fountain in front, render this a pleaſing retreat for the ladies in the ſultry hours of the ſummer, or for the maſter and miſtreſs of the family when ſick or indiſpoſed.

The rooms of ſtate are more ſpacious than thoſe of the harem, and being built over the offices, are a conſiderable height from the ground. The approach is by a broad and open ſtair-caſe to a ſpacious colonade, uſually facing the north or the weſt, protected from the ſun by a ſhed projecting from the roof, and occaſionally by large curtains ſuſpended between the pillars of

the colonade. By this means, and by the windows on each ſide of the apartments and kioſks, the whole is well ventilated.

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In one of the largeſt of theſe rooms, the great men in office ſit ſeveral hours of the day for the deſpatch of buſineſs, and the receiving viſits. The maſter of the houſe is placed at the upper corner of the divan, never reſigning his ſtation, except to a perſon of ſuperior dignity. One of equal rank takes his place in the oppoſite corner, while the reſt of the viſitors are ſeated on the lower part of the divan, at a reſpectful diſtance from both. The inferior officers, and the pages in waiting, are ranged in front of the divan, and only advance when their ſervice requires, returning immediately again to their ſtation.

The number of people aſſembled at the ſeraglios on certain days of the week is conſiderable, but they wait in the gallery, or in the outer rooms, till their turn of admittance, and as ſoon as their buſineſs is deſpatched, give place to others in ſucceſſion; ſo that the chamber of audience is ſeldom or ever crouded.

In reſpect to the harem, beſides the favourable arrangement of the apartments, ſomething might be aſcribed to the precaution often uſed by the ladies, in imitation of the Chriſtians, whoſe timidity they were formerly wont to deride. They avoided entering the infected chamber, and committed the care of the ſick to the ſlaves, or to Arab women hired on purpoſe.

It was remarked before, that of all people the Jews appear to have the ſtrongeſt dread of the plague, a circumſtance in one light rather fortunate, no places being more favourable to its propagation than the habitations of the lower claſs of that nation. The houſes are ſmall, or, if large, the different apartments are crouded with different families. Many of the houſes are more than a ſtory below the level of the ſtreet, in a condition half ruinous

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ruinous, dirty in the extreme, damp and badly aired, from the nature of the ſituation; and the wretched inhabitants are cloathed in rags. When one of them is taken ill, and known to have the plague, he is immediately abandoned to the care of an attendant, and the reſt of the family ſeek refuge, if poſſible, at ſome diſtance. The families lodged in the other apartments, all not having it in their power to fly, are obliged to remain, but avoid approaching the chamber of the ſick, and reſtrain their children from going into the court-yard. Thus pent up, they ſuffer all the inconveniencies of the hot ſeaſon in the midſt of perpetual dread, till at length, what often happens, they alſo are attacked with the diſtemper. It was not without horror I deſcended into theſe dreary manſions. The ſick, it is true, generally found one of their kindred to attend them, an advantage they ſometimes had over the more opulent Turks and Chriſtians; but the mouldering walls and the ſordid mattreſs denoted want and miſery; while the other apartments, at a few paces diſtant, were filled with perſons, who preſented themſelves at the doors and windows, as I paſſed, with terror and deſpair portrayed in their countenances. This laſt circumſtance was not obſerved in the keiſarias of the Arabs, where, whether from dictates of religion, or different notions of the danger they ſtood expoſed to, the people, in ſimilar ſituations, maintained a calm intrepidity that might have inſpired thoſe with courage who, as better informed philoſophers, were apt to commiſerate and ſhudder at the popular ignorance.

Several inſtances have been mentioned in the Journals of perſons infected in houſes ſhut up. When ſuch happened in the beginning of the confinement, it was where ſhutting up had been too long deferred; and, in all probability, the infection had been contracted before confinement. When it happened at a period more advanced, it ſooner or later appeared that irregularities had been committed, inconſiſtent with the rules of ſhutting up. Among the Europeans (the one in the Jeſuit Convent excepted)

excepted) as well as in the houſes of the native Chriſtians of the better claſs, no accidents of that kind were heard of.

The conſequences of delaying too long to ſhut up, and of the coming out too ſoon from confinement, have been ſhown by inſtances in the courſe of the foregoing narrative, and may ſtand as admonitary examples to thoſe whom it may concern, of the imprudence of procraſtination and temerity, on occaſions wherein health is ſo nearly intereſted, and the moſt undaunted courage cannot protect us.

The prieſts of the ſeveral nations, appointed to attend the infected, eſcaped the infection the firſt and ſecond years, but moſt of them died the third. In the ſame year alſo ſeveral of the grave-diggers and waſhers of the dead, who had reſiſted ſince the beginning of the ſeaſon, periſhed. It is the more remarkable that many of theſe accidents happened in the decline of the plague.

The Europeans, more eſpecially in the year 1762, were, in general, ſcrupulouſly attentive to the regulations of ſhutting up. I myſelf was led into what may appear a violation of thoſe ſtrict precautions which I had often, in the ſtrongeſt terms, recommended to others.

The cuſtom-houſe khane is one of the largeſt in the city; and, in like manner as the others inhabited by the Europeans, is ſurrounded by buildings, conſiſting of a ground-floor and one ſtory, with flat terraced roofs. The ground-floor ſerves for magazines and chambers for the native merchants, whoſe dwelling-houſes are in different quarters of the town. The numerous apartments above are ſub-divided into large houſes for the accommodation of the Europeans of different nations. The gentleman with whom I ſhut up poſſeſt one of thoſe houſes, on the weſt ſide of the ſquare.

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Many had applied daily for my advice, during the quarantine, at my own houſe; and, ſoon after my removal to the khane, the number increaſed ſo conſiderably, that during four or five hours in the forenoon, and from four in the afternoon till ſunſet when the gate was ſhut, there was a conſtant ſucceſſion of people under the windows. After the middle of June, when a much larger proportion of the ſick recovered than before, the croud was greatly increaſed by convaleſcents who had occaſion for little more than external remedies, which being diſpenſed gratis to all who applied, people were encouraged to come from the remote ſuburbs, and even from the villages. Thus it frequently happened, that of three or four hundred who came in the courſe of the afternoon, more than one half remained in the khane together at the ſame time[6]; it being impracticable to deſpatch them ſo faſt as they wiſhed[7],

This aſſembly preſented intereſting ſcenes to a ſpectator, who conceived his own ſituation ſecure from danger. Some in whom the diſtemper had not as yet fully declared itſelf, ſuffered ſlight ſymptoms, but were tortured by doubt and apprehenſion; others were ſo ill as to be unable to walk unſupported; and ſome who had got over the dangerous ſtage of the diſeaſe, though ill able to walk about, were under the neceſſity, from want of aſſiſtants, to come either for their own medicines, or perhaps on account

[6] A Carmalite Friar, from the window of a convent contiguous, frequently amuſed himſelf by counting them.

[7] The detention of thoſe who applied only for external remedies, aroſe from my deſire of being more particularly informed of the former progreſs of the Eruptions, and whether the patient had ever been infected before. The taking down theſe circumſtances, together with the ſex, age, &c. required time.

The examination of ſuch as were actually ſick, or of the reports of aſſiſtants, where the ſick were unable to come themſelves, occaſioned ſtill a longer detention.

The number ſtanding in my ſick liſt in 1762, from the time of ſhutting up till the beginning of Auguſt, amounted nearly to three thouſand.

of

of others who had fallen ill in the family. It was a ſpectacle which preſenting new and various forms of human diſtreſs, excited ſympathy and compaſſion with irreſiſtible power. But nothing was more affecting than to ſee a mother, as yet in blooming health, with tears and a look of anxious entreaty, imploring advice for the child in her arms; and, while ſhe preſſed the infected infant to her boſom, ſeemed in the fond careſſes ſhe received in return, regardleſs of her own life, to ſuck in the contagious poiſon with her lips.

The aſſembly in the khane did not, however, conſiſt ſolely of objects moving compaſſion. The aſſiſtants who came for medicines made up a conſiderable ſhare, and among thoſe were generally ſome who amuſed the impatience of the croud in waiting, with facetious ſtories, or with the news of the quarter they came from. There were beſides many convaleſcents who continued only to ſuffer ſlightly from the eruptions, and, like perſons lately eſcaped from eminent danger, talked in a manner to infuſe courage into the deſpondent.

My ſtation at the window, which was not more than fifteen feet from the pavement, might perhaps have been regarded as not beyond the influence of an infected atmoſphere ariſing from the bodies of a multitude of perſons who had the plague upon them, or from the cloaths of ſuch as were employed about the ſick. This conſideration, at length, determined me to talk on the ſubject with the gentlemen of the houſe. They had never dropped a hint of apprehenſion, nor ſhould I probably have thought of danger had I been alone. But the mere poſſibility of any thing happening by which others might be involved, who had not the ſame motive of curioſity with myſelf for incurring riſk, gave me uneaſineſs[8]. I found my hoſts, however, after conſidering all circumſtances, more inclined to truſt their future

[8] I certainly did not apprehend any great degree of danger; but believe, on any other occaſion of the like kind, I ſhould have preferred ſhutting up by myſelf: at leaſt I thought ſo at that time.

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ſafety to a continuance of the precautions employed from the beginning, than to render it leſs precarious by withdrawing from the diſtreſſed the ſmall ſhare of aſſiſtance placed in our power to adminiſter, and claimed by humanity. A determination was taken in conſequence, and fortunately followed by no harm: a fact, it may be ſufficient to remark here, without entering into the diſcuſſion, whether the determination was prudentially right, or how far it was conſiſtent with the eſtabliſhed rules of ſhutting up.

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CHAP. VII.

Progreſs of the Plague in various Parts under the Government of Aleppo, as alſo at Urfa and Maraaſh, to the North.

THE plague, in the year 1762, raged in ſeveral towns beſides Aleppo, but not having received accounts from thoſe parts, on the accuracy of which I myſelf could rely, I ſhall not preſume to enter into a particular detail of its progreſs.

It has been mentioned before, that in the ſpring of 1761, the plague had not yet reached the villages and towns to the north of Aleppo. They were not attacked, according to our intelligence, till ſome conſiderable time after.

It has alſo been obſerved, that the plague was at Antioch in the year 1761. It broke out at Byland in the latter part of the autumn; and, ſometime in October, ſhowed itſelf at Scanderoon, where it ſubſiſted till the beginning of June in the following year.

Byland

In the year 1762, the plague raged furiouſly at Urfa. The Baſhaw of that city, together with a great number of his pages and

Urfa.

and ſoldiers, died in the month of July. The villages in the neighbourhood of Urfa were in a manner depopulated. CHAP. VII.

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In the month of July, the plague, by my advices, had not yet ceaſed at Byaſs, nor at Adena. In the latter of theſe towns, and in the villages adjacent, the mortality was ſaid to have amounted to ninety-five thouſand; but in this computation there muſt be ſome allowance made for exaggeration. Byals and Adena.

With regard to one of the towns, ſituated to the northward of Aleppo, that had received the contagion in the year 1761, ſome particulars came to my knowledge, a long while after, which deſerve to be recorded.

Maraaſh, is a place of ſome trade, diſtant between two and three days journey from Aleppo, to which city it ſends yearly, among other commodities, a conſiderable quantity of Scammony collected from the neighbouring mountains [1]. The plague made its firſt appearance at this place in the ſpring 1761, but did not ſpread much, and ceaſed in the autumn. It appeared again next year early in the ſummer, ſpread more, and continued in ſome degree all the winter. Maraaſh.

In the year 1763, it encreaſed in the ſummer, though not ſo much as in the preceding year. In the year 1764, it ſpread ſtill leſs, but obſerved nearly the ſame progreſs; that is, was not at all, or very little, heard of in the winter. In the year 1765, the diſtemper raged at Maraaſh with more violence than ever, and extending to the adjacent villages, made terrible havock [2].

[1] Medical Obſervations and Enquiries, Vol. I. P. 17, &c.

[2] I received the above account from a Chriſtian merchant, who came to Aleppo in the autumn 1765, having, on account of the plague, left Maraaſh where he had reſided the greater part of the four preceding years. In the ſame year ſeveral natives of Aleppo died at Maraaſh, and, among others, the brother of Georgios Antonios, Bite *Baboojes*.

The

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Maraaſh

The continuance of the plague ſo much longer at Maraaſh than in any of the towns in Syria, was a ſingular fact; nor was it leſs remarkable that ſo little of the matter ſhould be known at Aleppo, notwithſtanding the conſtant intercourſe ſubſiſting between the two towns. There were indeed from time to time vague reports of the plague's remaining ſtill in the mountains to the north: but they met with little credit, and were ſoon ſuppreſt. On the return of ſeveral Aleppo merchants who had been ſettled at Maraaſh, and in the ſummer 1765, abandoned the place on account of the plague, the affair came at laſt to be more talked of at Aleppo.

A

TREATISE

OF THE

PLAGUE.

BOOK II.

Medical Account of the Plague.

CHAP. I.

CHAP. I.

General Remarks on the Deſcription of the Plague.

FROM the writings of phyſicians, who in different ages and in various parts of Europe had practiſed in the plague, may be collected a general deſcription of the diſeaſe, to which little or nothing can be added. The ſymptoms peculiar to it have been faithfully diſtinguiſhed and enumerated; but the concourſe, progreſs, and ſucceſſion of theſe ſymptoms under the various forms which are met with in individual caſes, have ſeldom been repreſented with the ſame graphical correctneſs to be found in the deſcription of the varieties of the ſmall-pox, or of other eruptive fevers.

This may readily be accounted for from ſeveral cauſes. The dread of infection has proved no ſmall obſtacle to that cloſe inſpection beſtowed on common diſtempers. The deſertion of phy-

BOOK II.

ſicians and ſurgeons, by throwing the dangerous labour into a few hands, rendered it next to impoſſible for thoſe who continued to expoſe themſelves, to pay the ſame attention, as at other times, to a numerous ſick. In the inceſſant hurry of employment, practitioners were under the neceſſity of truſting much to memory; they had it not in their power to write always at the inſtant, nor to viſit ſo frequently as in other epidemic diſeaſes. It often happened that the ſick were not in a condition to give a diſtinct account of themſelves, while, from the timorous attendants, it was difficult to learn preciſely what paſſed in the intervals of viſiting; to all which it may be added, that numbers of the medical aſſiſtants have fallen victims, and the fruits of their experience have periſhed with them.

Theſe conſiderations, while they acquit obſervators of the imputation of negligence, may ſerve alſo to account for the defective narrative ſo often met with in medical journals of the diſeaſe; and though, to this general remark, ſome exceptions muſt be admitted[1], the cauſes aſſigned above will be found to have had powerful influence. In the year 1720 and 1721, the Montpelier phyſicians ſent by the court to Marſeilles, in the midſt of advantages unknown to former times, own that it was with extreme difficulty they were able to keep journals of the few peſtilential caſes with which they have favoured the public.

The irregularity of the diſeaſe has been remarked by all who, from their own experience, have written on the plague; and, at firſt, ſtruck me ſo forcibly, that I conceived it to be an inſeparable attribute. The varying forms of a diſtemper, ſo ſudden in its tranſitions, ſeemed ill-ſuited to methodical arrangement. But, in proportion, as I became more converſant with the ſick, this irregularity ſenſibly leſſened. A correſpondence, in the ſeries of leading ſymptoms, was diſcoverable, in many caſes, amid the

[1] Bindius Lœmographia Centumcellenſis, Romæ, 1658. Foreſtus, &c.

confuſed combination which before ſeemed to belong indiſcriminately to almoſt every form of the diſeaſe. Of this I became much more ſenſible after comparing a conſiderable number of journals, and reviewing many looſe memoranda haſtily ſet down at the time; and thence have been induced to attempt a methodical arrangement of my obſervations; which, defective as the method may be, or in other reſpects liable to objection, ſeemed to be the moſt eligible way of conveying an idea of the varieties I wiſhed to deſcribe. CHAP. I.

The varieties to be arranged under ſeparate claſſes, are diſtinguiſhed by the concurrence of the principal ſymptoms, and, ſometimes, by the iſſue of the diſeaſe. The formidable peſtilential ſymptoms more conſtantly attendant, where the diſeaſe terminates fatally, are often alſo met with in the leſs deſtructive forms of the plague; but, for the moſt part, ſtand conjoined with others, and vary in their courſe and alternations. Hence the danger denoted by thoſe ſymptoms comes to be rated rather from their ſucceſſion, than from their apparent violence. The comatous diſpoſition which comes on the firſt night, and continues the ſecond day, denotes more danger than where the ſame ſymptom, in a higher degree, comes on in a more advanced ſtage, and abates with the exacerbation.

The claſs, to which a particular caſe ought to be referred, can ſeldom be determined at the beginning, or before two or more days have elapſed. Indeed, except where the diſeaſe by a rapid progreſs terminates fatally the ſecond or third day, a judgment can rarely be formed ſooner than the fourth: very often not till ſome days later. It may alſo be remarked, that the diſtinctive character of the claſſes being founded on the progreſs and concurrence of ſymptoms, which ſeparately are in ſome degree common to all the varieties, ſome of theſe claſſes will neceſſarily border ſo cloſely, that it will often be difficult, if not impoſ-

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ſible, to decide to which the ambiguous caſe ought to be referred.

Extenſive practice and ſedulous obſervations will diminiſh, if not remove, this difficulty; experience has ſhown me that certain forms of the plague are leſs irregular than they at firſt appeared to be, and I have no doubt that time and wider practice among the infected, might have enabled me to correct my arrangement, and to leſſen the number of caſes now deemed anomalous.

The utility of methodical arrangement ariſing from its perſpicuity, muſt greatly depend on future improvements in the hiſtory of the plague in its ſpontaneous or natural courſe; and in this view the Mohammedan countries, where the diſeaſe frequently recurs, and is little interrupted by powerful remedies, preſents an ample field for obſervation. But though the difference of police, as well as of popular opinions prevalent in the Levant, prevent, in ſome meaſure, the deſertion and internal diſorder which, in Chriſtendom, add greatly to the calamities of great cities, in the time of a plague, ſtill the phyſician practiſing in that country, at leaſt at Aleppo, finds much difficulty in keeping regular journals of peſtilential caſes.

The Mohammedans, who compoſe by much the majority of inhabitans, conceive that medicines, eſpecially European medicines, are of little ſervice in the plague; and they are in all reſpects leſs attentive to the ſick than in other diſtempers, where they believe attention to be of more conſequence: nor are they altogether exempt from the dread of infection, which, operating on the minds of aſſiſtants, renders them leſs vigilant than where they have nothing to fear on their own account.

Among the Chriſtian and Jewiſh natives, the dread of infection prevails univerſally; and the aſſiſtants are not only leſs vigilant, but their reports muſt be received with unuſual diffidence; it being

being not uncommon to endeavour, by a fictitious account of incidents, to conceal their neglect, in order to gain unmerited credit for watchful attendance. This more particularly happens where the phyſician, preſcribing on the report of others, does not viſit himſelf; or, where there happens to be no confidential perſon in the family to ſuperintend the nurſes. CHAP. I.

To the impediments already enumerated, it may be added, that popular prejudice excludes certain remedies altogether, condemns others as improper in particular ſtages of the diſeaſe, and by confining the Materia Medica to a few drugs of little efficacy, very often reduces the phyſician to the neceſſity of remaining a paſſive ſpectator of what paſſes. The remedies ordered are ſome times negligently adminiſtered, at other times, when the aſſiſtants happen to be much alarmed by appearances, are not given at all; and where the caſe is ſuppoſed to be deſperate, by deſiſting from bringing further reports, the aſſiſtants leave the phyſician in ignorance of the event, and the journal of courſe breaks off abruptly, perhaps, at the moſt intereſting period.

Were there not numerous exceptions to this general repreſentation of matters in Syria, an European phyſician could have little inducement voluntarily to expoſe himſelf to danger, with ſo unpromiſing a proſpect of being of ſervice in the way of his profeſſion. But it is no more than juſtice to declare, that I often met, more eſpecially in the middle and lower ranks, with inſtances of that affectionate attachment, which ſets perſonal danger at defiance; and I am perſuaded, it will at all times be in the power of a reſolute practitioner, by his own conduct and example, to add greatly to the number of ſimilar inſtances. At the ſame time it is by a reſolute inſpection only, that the medical hiſtory of peſtilential varieties can be improved, and where remedies have been given that their virtues can be eſtimated. On this head I beg leave to remark further, that in order to encourage application for advice, the phyſician who, in Syria, devotes

BOOK I. himſelf to attendance on the infected, will do well in relinquiſhing all pecuniary emoluments of practice, expecting his reward in the conſcious ſatisfaction attending every endeavour to alleviate human diſtreſs. He will approach the infected with a degree of fortitude, that lucrative motives could never inſpire; and will feel himſelf raiſed above the ſuſpicion of any illiberal bias averting his attention from the indigent orders of ſociety, the moſt populous and moſt ſubject to the diſtemper.

The plague, as defined by modern phyſicians, is generally ſuppoſed to be produced by one ſpecific contagion, variouſly modified by the epidemical influence of the ſeaſon, by conſtitutional prediſpoſitions, or other incidental cauſes. Theſe ſeveral modifications are not, however, conſidered as conſtituting ſo many diſtinct ſpecies, but only varieties, and it is a principal object of methodical arrangement, by diveſting theſe varieties of adventitious ſymptoms, to render them more preciſely ſubjects of compariſon.

When it was remarked above, that a correſpondence in the concourſe of certain ſymptoms was unexpectedly diſcovered in a number of different caſes, ſufficient to encourage their diſtribution into claſſes, in imitation of the plan of the French phyſicians at Marſeilles[2], no contradiction was intended to the general opinion of the irregular nature of the diſeaſe, ſo juſtly confirmed

[2] Traité de la Peſte, p. 223.

I ſhould willingly have adopted the claſſes of the Montpelier phyſicians, had I not met with ſeveral diſcouragements in the attempt. The third claſs, in particular, ſuited none of my caſes. Upon the whole, conſidering arrangement as merely arbitrary, I thought it better to chuſe that from under which I could convey my own deſcription with moſt facility and exactneſs.

The account of the plague at Marſeilles by M. Bertrand, (Traité, &c. p. 371) I regard as a good one, but think his diſtinction of two ſorts too general. There is another diviſion in the ſame work, p. 212, by M. Emeric of Aix, who conſtitutes three degrees of malignity.

by

by phyſicians of more extenſive experience than I pretend to. On the contrary, beſides difficulties already hinted as reſulting from that irregularity, I met with ſo many caſes diſqualified for the claſſes, as rendered it neceſſary to allot one for them under the general head of anomalous; conceiving it better to leave an opening for the reception of particular caſes, than to venture upon an abſtract deſcription of deviations from the more common courſe of the diſeaſe, which, in attempting conciſeneſs, might happen to exclude circumſtances too haſtily deemed immaterial. There is little probability of this anomalous claſs being entirely diſencumbered of ſubjects, but the number may probably be diminiſhed, when future obſervations and more complete diaries of caſes ſhall have improved the hiſtory of peſtilential varieties; and a better method of arrangement ſhall have invented claſſes for their reception.

It was partly this conſideration which induced me to inſert in the appendix, a century of peſtilential caſes, ſelected from my journals, though preſented in a ſtate far leſs complete than I could have wiſhed. The obſervations, as far as I am acquainted with myſelf, have been made unbiaſſed by any adopted theory; and the caſes ſelected, it will be perceived, have not been produced as vouchers of a practice extraordinary ſucceſsful, or of the efficacy of favourite remedies. In a great part of them, Nature was left to take her courſe uninterruptedly. In others, bleeding and emetics at the beginning excepted, the remedies adminiſtered were of that kind which have no claim to high virtues; and ſeveral inſtances are given wherein, though evacuations were omitted, little or no material difference could be diſcovered in the progreſs of the ſymptoms.

In many of the peſtilential caſes recorded in books, the remedies employed have been ſuſpected of altering the natural courſe of the ſymptoms, and even of producing ſome ſymptoms

BOOK II.

not incident to the diſeaſe[3]. How far ſuch imputations are well grounded, will beſt be determined by comparing analogous caſes where the whole was committed to the conduct of Nature, and, as already obſerved, ſuch are moſt likely to be collected in a country where violent remedies are ſeldom admitted. The caſes or journals now exhibited, defective as they are, will furniſh ſome materials for this purpoſe: they may ſerve alſo to illuſtrate the claſſes; and particular facts may happen to ſuggeſt uſeful hints to others, which have not occurred to me.

To eſtabliſh ſome foundation for a more exact eſtimate of the comparative merit of various methods of treatment which have been adopted in the cure of the plague, is another object of methodical arrangement.

Of the peſtilential varieties, ſome are naturally attended with much leſs danger than others. This truth ſo obvious, has in general been too ſlightly adverted to. From the time that the plague invaded Aleppo in the year 1760, till its final determination in 1762, the diſeaſe was always regarded as dangerous; but the degree of danger was very different at different ſtages of the ſeaſon[4]. At the beginning, few or none of the infected eſcaped death; as the ſeaſon advanced, a certain proportion of the ſick recovered; and in its ſtate and decline, the proportion of ſuch as recovered was greater than ever.

This is ſufficient to ſhow the ſubſervience of methodical arrangement to practice; and the importance of marking preciſely the ſtage of the peſtilential ſeaſon, as well as the ſtage and circumſtances of the caſe, when remedies were applied. To the neglect of this preciſion it is owing that ſo much of the medical obſer-

[3] Traité de la Peſte, p. 2. Obſ. p. 261.

[4] This circumſtance was not peculiar to Aleppo, but has been obſerved of ſeveral plagues. Traité de la Peſte, p. 1. 369, 428.

vation in the plague is of leſs uſe, in application, than it otherwiſe might have been. It will often be found that writers have contented themſelves with giving the aggregate of obſervations made in the courſe of their practice, without regard to dates, as if the plague was invariably or equally deſtructive at all periods; while others have laboured indefatigably to accommodate their obſervations to ſome favourite ſyſtem[5].

The peſtilential caſes or diaries have been arranged in chronological ſeries, in preference to the bringing thoſe of different years together, which are connected with the reſpective claſſes; and reference is made, by means of the number affixed to each caſe reſpectively. But another motive for placing the caſes in regular ſequence, was to preſerve them as materials, independent of any arrangement whatever; for I am far from being ſo partial to the method I have adopted, as to think a better may not be invented hereafter, nor that others may not diſcover in my diſtribution, what I conceive may be objected to, that of the Montpelier phyſicians in the year 1720, that the caſes intended to elucidate the claſſes, have in ſeveral inſtances been miſplaced[6]. Errors, however, of this kind do not affect the truth of the facts narrated, and with this diſtinction in view, it has been my wiſh all along to keep matters of fact carefully ſeparate from all opinions or conjectures occaſionally ariſing from them; ſo that whatever may befall the latter, the former may remain fit ſubjects for others to inveſtigate, employ, or methodize, with unreſtrained freedom, and, perhaps, better ſucceſs.

[5] The conduct of ſeveral phyſicians in France in the years 1720 and 1721, affords remarkable inſtances of the power of prepoſſeſſion in favour of an hypotheſis. See Traité de la Peſte, Obſ. 1. p. 244. Obſ. 2. p. 246, 260, 208, 308, 313, 317, &c.

[6] Upon an attentive peruſal of the peſtilential caſes produced by Meſſrs. Chicoyneau and Verney to illuſtrate their claſſes, very few of them appeared to me to be appoſitely applied. See Obſ. 1. Cl. i. Obſ. 1. Cl. ii. p. 254. Obſ. 2. p. 258. Cl. iii. Obſ. 1. p. 268. Cl. iv. Obſ. 1. p. 282. Obſ. 2. p. 287. Obſ. 3. p. 293. Obſ. 4.

CHAP. II.

Of the Symptoms of the Plague.

OF ſymptoms enumerated by writers on the plague, there are ſome which I had no opportunity of obſerving[1]; ſome differed a little in their appearance; and there are others which the plague claims in common with other febrile diſorders, but are of little or no uſe in diſcriminating the varieties. Theſe laſt are, in general, paſſed ſlightly over, even in the journals; the firſt, which I conceive to be eſtabliſhed upon unqueſtionable authority, hint an admonition to confine myſelf to a deſcription drawn purely from my own obſervations; only at the bottom of the page occaſionally ſubjoining remarks on the deſcriptions of former writers, (whom I have conſulted ſince reviewing my papers) where I think they may ſerve to ſupply deficiencies in my own.

In order to avoid interruption in the deſcription of the claſſes, I ſhall premiſe a few remarks on thoſe ſymptoms ſeparately, which in concurrence and ſeries are ſuppoſed to form the ſeveral varieties. The peſtilential Eruptions being reſerved for another place, the ſymptoms here alluded to are the following:—Fever, Delirium, Coma, Impediment or loſs of Speech, Deafneſs, Muddineſs of the Eyes, White Tongue, State of the Pulſe, Reſpiration, Anxiety, Pain at the Heart, Inquietude, Debility, Fainting, Convulſion, Appearances of the Urine, Perſpiration, Vomiting, Looſeneſs, and Hemorrhage; to which may be added, the uſual Effects of Pregnancy, when conjoined with the plague.—Of theſe in order.

[1] Bloody urine, fetid ſweats, ſweats of various colour, vomiting of blood, ſneezing, &c.

FEVER.

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Fever. A fever was a conſtant attendant at one ſtage or other of the plague, with very few exceptions; but in different ſubjects varied greatly in degree and continuance, as well as in it's concomitant ſymptoms. It was uſually preceded by a ſenſe of wearineſs, a ſlight ſhivering, and a confuſion, rather than pain, in the head [2], the head-ach ſeldom riſing high till the advance of the hot fit. The cold ſtage was, in general, of ſhort duration, and ſeldom attended with thirſt, or ſo much anxiety, as the ſame ſtage in tertian fevers; but the changes in the ſucceeding hot fit were more ſudden, anomalous, and alarming. A nauſea, ſickneſs, and vomiting frequently attended from the beginning; but in a large proportion of the ſick, and in caſes too which terminated fatally, theſe ſymptoms were abſent.

In many caſes the acceſs differed little from that of ordinary fevers, ſo that except from collateral circumſtances (the reigning epidemic, the patient having been in the way of infection, and the like) a judgment could not well be formed ſooner than the ſecond night, unleſs where buboes or carbuncles were protruded within the firſt twenty-four hours. Theſe removed all doubt of the nature of the fever, but furniſhed no ſure prognoſtic of the iſſue of the diſeaſe.

The fever uſually declined in the morning of the ſecond day, and ſometimes, but ſeldom, a ſecond ſlighter cold fit preceded the next exacerbation. It ſtill more rarely happened, that the cold and hot fits returned regularly as in remittent fevers, for ſeveral days ſucceſſively: irregular coldneſs in the extremities was more common [3]. Inſtances of the plague ſupervening in intermittent fevers were very rare [4].

[2] Caſe LVI. LXIII. Appendix.
[3] Appendix, Caſe XLI. LXXI. LXXXIX. CL.
[4] Caſe XLII.

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The peſtilential fever, in its moſt continued ſtate, roſe and declined ſeveral times in the courſe of twenty-four hours, and the changes from better to worſe, and *vice verſa*, were more ſudden and various than in other fevers. The exacerbations were irregular in the time of their return, in their violence and duration, and the intermediate calms or remiſſions were variouſly clear or obſcure; but the mornings were generally calm, the nights diſturbed. In the midſt of theſe changes the diſeaſe advanced with wonderful rapidity, inſomuch that the patient on the ſecond or third day was often in point of debility, diſorder of the ſenſes and of the vital functions, reduced, in appearance, to the condition of one in the laſt ſtage of a malignant fever: yet to this deſperate ſtate would ſucceed a remiſſion, in which his ſenſes, and intellectual faculties were reſtored, the vital functions went on calmly, and all, but weakneſs, ſeemed to have vaniſhed like a dream.

Remiſſions of this kind early in the diſeaſe, or when not preceded by a ſweat, were often ſhort and fallacious; but when induced by a ſweat on the third day or later, and of ſome hours continuance, they gave ſome hopes of a happy iſſue, eſpecially if the pulſe did not ſink, and the head was tolerably clear. The danger of the ſucceeding exacerbations was rated rather from concomitant ſymptoms than from the violence of the fever, as will be explained more particularly under the reſpective claſſes.

Delirium. The delirium, in the plague, ſeldom roſe to ſo high a degree of phrenſy as in ſome other fevers. It ſometimes came on the firſt night, but, in general, not before the ſecond. It roſe higheſt in the febrile exacerbations; leſſening in the remiſſions into a rambling or confuſion of intellects, and frequently went off entirely for ſeveral hours in the day-time, but returned with the evening exacerbation.

Coma.

Coma. The comatous diſpoſition ſometimes attended from the acceſs[5], ſometimes came on in the advance of the diſeaſe, and very often alternated with the delirium. It was, in general, a more dangerous ſymptom than the delirium, but moſt dangerous when it came on early, and did not abate in the remiſſions. It was for the moſt part, except ſometimes in the nocturnal exacerbations, not difficult to rouſe the ſick from their lethargy, by ſhaking their arm, or ſpeaking loud in their ear[6]. When rouſed they anſwered rationally at firſt, but if teazed by repeated queſtions, they gave marks of impatience at the being diſturbed, denied the having been aſleep, and as ſoon as left to themſelves relapſed into ſlumber.

Loss of Speech, Faltering, Tremor of the Tongue. Loſs of ſpeech was not an uncommon ſymptom. It ſometimes came on the firſt or ſecond night, and was only reckoned portentous where it continued long, or was conjoined with other bad ſymptoms[7]. Faltering and trembling of the tongue, except in caſes of extraordinary debility, ſeldom appeared earlier than the third day[8]. An impediment of ſpeech ſometimes continued for ſeveral months after the patient's recovery.

Deafness. The ſenſe of hearing was frequently impaired, but abſolute deafneſs, a ſymptom very common in the advanced ſtages of epidemic fevers in Syria, was ſeldom obſerved.

Muddy Eyes[9]. This change in the eyes was extremely remarkable. It ſometimes was viſible from the firſt day, but more commonly

[5] Caſe C.
[6] Caſe VIII. XXVI.
[7] Caſe VII. XXII. XXIV. XLIV. XLVII.
[8] Caſe XXVIII. LIII.
[9] Caſe I. II. III. VII. IX. XII. XIII. XVI. XVII.

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from the ſecond or third, and remained till ſome favourable turn of the diſeaſe took place. It reſembled ſomewhat the dull fixed eye obſervable in the laſt ſtages of malignant fevers, but the dullneſs was different, muddineſs and luſtre being ſtrangely blended together[10]. It continued with little alteration in the remiſſions, and even

[10] The alteration in the eyes and change of countenance has been remarked by many writers, and variouſly deſcribed; but none of the deſcriptions I have met with exactly expreſs the appearance itſelf, and I dare not flatter myſelf with the hopes of being more ſucceſsful than others.

Foreſtus, lib. vi. V. 1. p. 209. deſcribes it thus: "Nonnullis & ferox vultus qualis temulentorum eſſe ſolet, incertus atque turbidus." Goclenius Loimographia, p. 42 (An. 1613) terms it, "Aſpectus torvus; aſpectus truculentus." Diemerbroeck, cap. vii. "Viſus turbidus," which in the Traité de la Peſte, p. 30, is rendered, "Le regard etoit egaré."

M. Chicoyneau, Traité de la Peſte, p. 224, "La vue fixe, ternie, egarée, marquant l'epouvante & le deſeſpoir;" which in the Engliſh tranſlation is rendered, "The ſight dull, fixed, wandering, expreſſing fearfulneſs and deſpair." But in another place of the Traité, p 37, it ſeems to be expreſſed more accurately, "Les yeux etoient ternis, le regard fixe & egaré," which if tranſlated, "The eyes muddy, the looks fixed and wild," would I think come nearer the truth.

In the above work the ſame appearance is mentioned by other phyſicians with ſome variation of expreſſion, p. 215. "Les yeux troubles, p. 362. "Les yeux s'téignent dans les uns & deviennent languiſſans, vifs & tres enflammés dans les autres," p. 413. "Les yeux etincellans ou entièrement mornes."

It ſhould have been remarked before, that M. Chicoyneau in his deſcription of his ſecond claſs, where the febrile ſymptoms roſe high, repreſents the eyes, "Rougeatres fixes, egarées, etincellans." M. Dedier marks the difference diſtinctly, "Les yeux eteints, les extremitiés froides." "Les yeux etincelans une chaleur brulante." "Les yeux ſont enfoncés s'appétiſſent, ſortent, de la tete, ſont plus ouverts que de coutume, quelquefois etincelans, & ſont enflammés, p. 590.

M. Bertrand, "Les plus malades ont les yeux vifs & etincelans même dans les plus grandes forblèſſes & le regard affreux à peu près comme les hydrophobiques, & ces yeux etincellans etoient toujours d'un mauvais augure. C'eſt ſans doute par là que quelques chirurgiens qui ont fréquenté le Levant, ſe vantent de connoître de trente pas de loin ſi un homme eſt attaqué de Peſte, p. 373."

even where the patient appeared ſenſible and compoſed. It did not increaſe in the febrile exacerbations, but the eyes acquired a redneſs, that added wildneſs to the look; which abating or going off in the remiſſions, the muddineſs remained behind. It was this which contributed chiefly in compoſing that confuſion of countenance which I ſhall not attempt to deſcribe, but which enabled me, after ſome practice, to pronounce with tolerable certainty, whether the diſeaſe was or was not the plague, though not independently of other ſymptoms. When this muddineſs diſappeared, or abated, it was conſtantly a favourable ſign. After a critical ſweat, it often diſappeared ſuddenly, but where there was a ſucceſſion of ſweats, or where no viſible criſis happened, its diſappearance was ſlow and gradual.

It was a ſymptom, almoſt in all caſes, ending fatally, as well as in a large proportion of thoſe that terminated otherwiſe. Children under eight years appeared to be leſs ſubject to it[11], and, in many caſes of ſlight infection, in adults, the eyes retained their natural luſtre.

White Tongue. The tongue very often retained its natural appearance[12], but where it changed its colour, it in general became

An ingenious phyſician, of very extenſive practice, ſpeaking of malignant and contagious fevers, makes a remark which I think applicable here. "When viſiting "a ward, containing twenty patients in fevers, at Haſlar hoſpital, where no "curtains are hung about the beds, one may at firſt view diſcover the moſt dan-"gerous caſes."

"There is ſomewhat to be obſerved in the eyes, and their motions, which can-"not be deſcribed, and yet indicates the preſent condition of the patient, (if he "is not at that time juſt rouſed from ſleep) better, perhaps, than any one other "ſymptom taken into conſideration." Lind's Diſſertation on Fevers and Infection, 2d edit. p. 193.

[11] Caſe XVI.

[12] Appendix, Caſe I. III.

white

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white and remained moiſt[13]. Sometimes it became parched, with a yellow ſtreak on each ſide, and remained reddiſh in the middle; but it never was obſerved to form ſo thick a fur, or become of ſo dark a colour as in the advanced ſtages of ſome other fevers[14]. The dryneſs or moiſtneſs of the tongue rarely correſponded with the febrile ſymptoms, for the tongue was often moiſt where the external heat was intenſe, and the pulſe indicated high fever, and, on the contrary, parched, where the fever in appearance was very inconſiderable.

Pulse. The general ſtate of the pulſe was low, quick, and equal[15]; ſometimes fluttering or intermittent[16]. In ſome bad caſes it remained always low, or varied little from its natural ſtate; but it more commonly roſe ſomewhat in the exacerbations on the two or three firſt days, and ſometimes becoming full, open, and ſtrong, remained ſo till the remiſſion, when it returned to its former ſtate. In the more advanced ſtages of the diſeaſe, the pulſe, in place of riſing in the exacerbations, was very apt to increaſe only in quickneſs, and became ſo ſmall at the ſame time, as to be felt with difficulty; a circumſtance which frequently led the nurſes to imagine the pulſe had vaniſhed, and left them to judge of the fever from the increaſed heat, inquietude or thirſt[17].

In

[13] Caſe VIII. XIII. XIV. XXVI.

[14] Some remarkable obſervations on the appearances of the tongue, by M. Emeric, may be ſeen in the Traité de la Peſte, P. 1. p. 214.

[15] Caſe I. III. V. VII. VIII. IX. X. XVII.

[16] Caſe XIV. XVI.

[17] A circumſtance remarked particularly by M. Chicoyneau, and the other French phyſicians, reſpecting the pulſe, never occurred to me.

In deſcribing the pulſe of the ſecond claſs, it is ſaid, that the ſhivering fit was followed by a quick, open, bold pulſe, which nevertheleſs was loſt upon preſſing the artery ever ſo little. "Les friſſons etoient ſuivis d'un pouls vif, ouvert, animé, "qui neanmoins ſe perdoit pour peu qu'on preſſat l'artere. Traité de la Peſte, p. 225.

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In ſome caſes which run out ſeveral days, and where other ſymptoms denoted much diſorder, the pulſe varied little from its natural ſtate; but in reſpect to the variations of the pulſe, ſo ſudden, frequent, and ſeemingly ſo incongruous with the other ſymptoms, there is much remains for future obſervation.

It may be proper to add, that what I have ſaid and ſhall ſay of the pulſe, is to be principally underſtood of its ſtate in the morning remiſſions, and in the exacerbations in the day-time; for I rarely ſaw the ſick in the evening, my time of viſiting being from early in the morning, till one or two afternoon; depending therefore on others for information of what paſſed in the evenings and nights, I ſeldom could expect ſuch exact accounts of the pulſe, as of other circumſtances viſible to the aſſiſtants.

" p. 225, 269.—Mais ce que je vous prie Monſieur de Remarquer, c'eſt que quelque " ſoit l'etat de pouls & ordre des pulſations, le pouls ſe perd toujours quand on " comprime l'artere, p. 591." M. Verney mentions an inſtance to the contrary of this as ſingular, " Le malade avoit alors un pouls plein, elevé, & qui reſiſtoit au " tact ce que je n'avois pas remarqué encore dans ce grand nombres des peſtiferes " que j'avois vus a Marſeilles, p. 329."' This was at Aix, and it may be remarked, that the phyſicians in other towns in Provence make no mention of ſuch a circumſtance in the pulſe; it is omitted alſo by M. Bertrand; but M. Couzier, at Alais, takes particular notice of it in his Obſervations, ut ſupra, p. 383.

If ſuch a circumſtance really exiſted at Aleppo, it muſt have eſcaped my notice. Where the pulſe was low, ſmall, and quick, it ſometimes ſeemed to diſappear as it were upon preſſure, but not ſo when high and full.—The phyſicians employed in the Gevaudan, mention a circumſtance nearer to what I have obſerved, " Le pouls " devient dur, profond, quelquefois ſi petit qu'il ſemble fuir deſſous le doigt, " p. 362."

Goclenius, who practiſed in the plague in 1611, thus diſtinguiſhes the pulſe: Loimograph. p 240. " Pulſus parvus, cum ſcilicet tangentibus arteria videtur, " quaſi tenue filum, motuſque arteriæ, tres tangentis digitos non excedit: creber item " et debilis, id eſt qui tactu evertitur; ſeu qui valide tactum non ferit, compreſ- " ſaque arteriá cedit, cui contrarius eſt vehemens."

BOOK II.

RESPIRATION. The breathing was very ſeldom diſordered, except in exacerbations in the advanced ſtage of the diſeaſe[18], or on the approach of death, when, as in all diſtempers, it became laborious. Fetid breath, or a cough, were not obſerved. The ſick felt no pain upon full inſpiration; nor was the pain at the heart hereafter mentioned, increaſed by it; it is true they were often obſerved to ſigh, as if from oppreſſion on the lungs; but as this commonly happened where they laboured under dejection of mind or deſpondence, ſo it uſually went off in the exacerbations, where ſenſe and recollection came to be impaired.

ANXIETY. A ſenſe of oppreſſion about the prœcordia, which the ſick were at a loſs to deſcribe, was in one degree or other a conſtant attendant on the plague, except in very ſlight caſes of infection; and where it came on early, or perſiſted in a high degree, was always a dangerous ſymptom. The ſick ſhowed how ſeverely they ſuffered by their perpetually changing poſture, in hopes of relief; but when aſked where their pain lay, they either anſwered haſtily, they could not tell, or, with a fixed, wild look, exclaimed, *kulbi! kulbi!* (my heart! my heart!). This anxiety increaſing as the diſeaſe advanced, terminated at length in mortal inquietude, the patient for many hours, in the laſt ſtages, inceſſantly writhing his body and limbs as if in agony.

PAIN AT THE HEART[19]. Though this was often conjoined with the former ſymptom, and by the ſick ſeemingly blended together, it appeared to be different, and to exiſt ſeparately. They often exclaimed, as in the other; my heart! my heart! pointing alſo towards the ſcrobiculum cordis, but then would add, *eujani kulbi*, my heart pains me! or, *naar ſi kulbi*, my heart is on fire! Another mark of diſtinction was, that in the former

[18] Caſe XXI.

[19] Caſe I. Appendix.

ſymptom

ſymptom the ſick ſometimes ſpontaneouſly preſſed their own, or the hand of another to the breaſt, whereas in this they could hardly bear the part to be touched.

This burning pain ſeemed to me to be ſeated about the orifice of the ſtomach, and I was once inclined to think it might be owing to bile or other acrid colluvies; but upon obſerving that very often, inſtead of being relieved, it was rather increaſed by vomiting, which had procured free diſcharges, I ſuſpected its continuance was to be imputed to a more fixed cauſe than matter contained in the cavity of the ſtomach. Whether the mortal inquietudes, mentioned above, were produced by the increaſe of this or the former ſymptom, or by the concurrence of both, could not be determined; the patient being for the moſt part in that ſtage, bereft of his intellects.

Debility. The ſudden loſs of ſtrength and diſturbance of the functions attributed to the brain and the heart, are reckoned, in a particular manner, ſymptoms belonging to the plague. In their higheſt degree they diſtinguiſh the moſt fatal forms of the diſeaſe; and under different modifications adhere to all its varieties.

In the moſt deſtructive forms of the plague, the vital principle ſeems to be ſuddenly, as it were, extinguiſhed, or elſe enfeebled to a degree capable only for a ſhort while to reſiſt the violence of the diſeaſe; in the ſubordinate forms, the vital and animal functions, variouſly affected, are carried on in a defective, diſorderly manner, and denote, more or leſs, danger accordingly.

Fainting. Faintneſs, in different degrees, was a very common concomitant, and ſometimes, though ſeldom, terminated in ſyncope. The early appearance of this ſymptom was remarkable in the plague; for in the advanced ſtages of other fevers, it is very common, eſpecially upon ſitting up; but here the erect poſture

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ſeemed to have leſs affect, nor was the faintneſs ſo ſoon relieved by lying horizontally, as in ordinary fevers; at leaſt it appeared ſo to me in ſeveral inſtances.

Convulsion. The acceſs of the fever was ſometimes, but very rarely, attended with convulſions[20]. Convulſive motions in the limbs were frequently obſerved in the courſe of the diſeaſe, eſpecially where there happened to be a numerous eruption of carbuncles[21], as alſo towards the end of the diſeaſe[22]. The *ſubſultus tendinum* appeared to me to be leſs frequent than in ordinary malignant fevers; but a continual trembling of the hands, without ſtartings, was very common. The hiccough was ſeldom obſerved, and ſneezing not once met with.

Urine. The urine, in many caſes, differed in no circumſtance from that of a perſon in health. It ſometimes was of a paler yellow, at other times high-coloured, but very often did not correſpond with the ſtate of the febrile ſymptoms. I never obſerved it ſo pale as it ſometimes is found in the cold ſtage of other fevers, and never found it tinged with blood. I could obſerve no regular depoſition of ſediment.

It ought however to be remarked, that what has been ſaid is not the reſult of wide obſervation; the examination of the urine having been too little attended to, partly through my own neglect, partly through that of the nurſes: indeed, it often became impoſſible, the ſick rendering it inſenſibly in bed.

Perspiration. Of all the excretions *that* by the ſkin would ſeem to be the moſt materially important in the plague. Where the ſkin remains perpetually dry, or where ſhort and precipitate

[20] Caſe XCII. CXIV.
Appendix, [21] Caſe XV.
[22] Caſe XCVIII.

ſweats

ſweats are attended with no favourable alteration of ſymptoms, danger is always to be apprehended[23]. On the other hand, ſweats at certain periods of the diſeaſe appeared clearly critical, in a greater or leſs degree. They were followed by a manifeſt alteration for the better, and, by their repetition, the fever was carried entirely off, or reduced to ſymptomatic exacerbations ſeemingly dependent on the eruptions.

That the ſweats here alluded to were in the natural courſe of the diſeaſe, or produced by the *vis medicatrix naturæ*, is ſufficiently evinced by many inſtances in the ſubjoined century of peſtilential hiſtories; and had I been able, as it was my wiſh, to have marked with more preciſion the ſucceſſion of ſymptoms, and other circumſtances in ſuch caſes, the hiſtories, which I am ſenſible are often defective, would have been of more ſervice in eſtabliſhing a leſs uncertain prognoſtic, as well as in leading to the diſcovery of what impedes or aſſiſts the ſalutary efforts of nature reſiſting the diſeaſe.

When it is conſidered that a natural tendency to ſweat is obſerved in a very large proportion of the infected, and perhaps of thoſe caſes wherein medicine appears hitherto to have been exerciſed, if not only, moſt viſibly with ſucceſs; the importance will be obvious of beſtowing peculiar attention on theſe forms of the diſeaſe in their natural courſe. It is that alone which muſt finally determine the expedience of forcing ſweats by more powerful ſudorifics, where the natural tendency is abſent; or of ſubſtituting more effectual means of relieving the ſick. In reſpect alſo to the other claſſes, which have generally been treated without ſucceſs, till ſuch time as the natural courſe of the varieties be aſcertained, there will always be a riſk of aſcribing to the remedies adminiſtered, conſequences good or bad which eſſentially belong to the diſeaſe itſelf.

[23] Caſe LV.

BOOK II.

The periods and other accidents, relative to ſweat, will be more fully explained under the reſpective claſſes. I ſhall only remark further at this place, that I never obſerved blood exude through the pores; neither was the ſmell of the ſweat particularly offenſive, or in any degree ſo remarkable as that of ſome eruptive fevers, particularly the ſmall-pox before eruption.

Vomiting. It was obſerved on another occaſion, that this ſymptom was abſent in a large proportion of the ſick. Where it appeared at the beginning, and continued with ſhort intervals, it generally denoted a fatal termination[24], and when it came on later in the diſeaſe, except in a ſlight degree, or was produced by extraneous cauſes, it was commonly in aſſociation with other dangerous ſymptoms[25].

The matter ejected from the ſtomach was various. Where the reachings were ſtrong and frequently repeated, bile was ſooner or later thrown up, but ſeemed to be emulged from the biliary ducts by the violence of the reaching; for at the beginning no bile was found in the baſon, and draughts of warm water were returned untinctured, or mixed only with the ordinary contents of the ſtomach.

Sometimes indeed bile was thrown up at firſt, and muſt have been lodged in the ſtomach previouſly to the reaching[26]; ſome caſes were attended with this diſcharge, accompanied with a bitter taſte in the mouth, a yellowneſs in the eyes, and other bilious ſymptoms; but, in general, bilious vomitings were not nearly ſo frequent as in the autumnal fevers. I do not recollect the having obſerved fetid diſcharges from the ſtomach; which probably was owing rather to accident, or to my inattention, than to ſuch never happening; neither did I obſerve vomiting of

[24] Caſe XXVI. XLVIII. XCVIII.
[25] Caſe XLIII.
[26] Caſe III. XXX.

blood;

blood; but a blackiſh liquor ſometimes came off the ſtomach in the laſt ſtage of the diſeaſe, in the production of which, blood may, perhaps, have had ſome ſhare.

A nauſea was rather more common than vomiting, but unleſs where the tongue or other ſymptoms indicated bile or other colluvies in the ſtomach, repeated reaching, provoked by warm water, had little effect in removing it, further than they effected the ſkin. Where a gentle ſweat ſucceeded to theſe forced reachings, the nauſea was leſſened, and even ſpontaneous vomiting was often checked by a ſweat; but a loathing, or averſion, from food of all kind, ſeldom left the patient till after ſome critical change had taken place.

Looseness. A looſeneſs came on ſometimes the firſt day [27], but more commonly ſupervened in the advance of the diſeaſe [28], and in either caſe, except where all other circumſtances were favourable, was conſidered as a dangerous ſymptom [29]. The ſtools, for the moſt part, were leſs fetid and offenſive than thoſe in tertian fevers; particular caſes excepted, where bilious ſymptoms happened to predominate. A miſtake, however, in this point may eaſily be made, if the ſtools be not examined till ſometime after they have been rendered, for in the hot climate they grow highly offenſive in a ſhort while.

I have ſometimes ſeen dark-coloured blood diſcharged by ſtool, unmixed with feces, and without griping pains [30]; indeed, pains in the bowels more rarely attended than in the common bilious diarrhœa. It was, perhaps, owing to this laſt circumſtance, that looſeneſs in the plague ſo often admitted of being

[27] Appendix, Caſe II. XCII.
[28] Caſe I.
[29] Caſe XIX. XXX. LXX.
[30] Caſe XII.

checked

BOOK II. checked by aſtringents or opiates, without previous purgation, and with viſible advantage to the ſick.

As looſeneſs was in general detrimental, ſo on the other hand coſtiveneſs was attended with no harm, and often with little inconvenience. A number of the ſick were diſpoſed to be coſtive throughout the diſeaſe[31]; and ſome had no ſtool for ſeven or eight days[32]; the popular dread of provoking a diarrhœa proving a bar to laxatives, and even to ſimple glyſters, which are readily admitted at other times.

The conſequences of this ſluggiſhneſs of the bowels were by no means what might have been expected; for on comparing a number of caſes wherein the body had been all along regular, they did not appear to have been particularly exempt from thoſe ſymptoms which might plauſibly have been imputed to coſtiveneſs in the others.

The general neglect of purging in the decline of the diſeaſe will be mentioned hereafter, in treating of the method of cure.

Hemorrhage. Hemorrhages, if not very ſlight, were in general reputed dangerous in whatever ſtage of the diſeaſe, and moſt of the caſes wherein they occurred, eſpecially if late, terminated fatally[33]. The journals, however, afford exceptions to this remark, and ſome inſtances are produced where the ſick, who had hemorrhages eſcaped, contrary to expectation[34].

I had occaſion to ſee hemorrhages from the noſe and the uterus only; for a few inſtances met with of blood from the

[31] Appendix, Caſe IV. LXXXI. LXXXVIII.
[32] Caſe XCI. See Traité de la Peſte, p. 43.
Appendix, [33] Caſe LV LXXXIII. XCVIII.
[34] Caſe LXV. LXVII. LXXXVI. XCI. XCVI. CVIII.

lungs,

lungs, the patients having before been ſubject to hœmoptoe, I reckoned not ſo much peſtilential ſymptoms as the return of an old diſorder [35]. CHAP. II.

A bleeding at the noſe early in the diſeaſe gave little alarm in young plethoric ſubjects, unleſs where profuſe, or returning at ſhort intervals. In the advanced ſtages it ſeldom was profuſe, but the blood was of a paler colour, and in conſiſtence thinner; and to the hemorrhage were often joined petechiæ, vibices, or other ſymptoms of approaching death [36].

An irregular eruption of the menſes, as likewiſe an immoderate flux of them, were generally attended with danger, but I had not ſufficient experience to pronounce any thing on their natural return at their proper period [37].

Effects of Pregnancy. Women in whatſoever ſtage of pregnancy, when infected with the plague, ſeldom eſcaped abortion, and many of them periſhed, even where the loſs of blood had not been conſiderable. Women near their time periſhed, almoſt, without exception, ſurviving delivery only a few hours. Some were delivered in the agonies of death [38].

The infant ſometimes bore evident marks of infection, at other times no marks whatever could be diſcerned [39]: but my experience here did not exceed a dozen of caſes. I knew no inſtance of a child's living, who had been brought into the world in the mother's laſt moments; nor of any of the others ſurviving their birth more than a few hours.

[35] Caſe LXXXI.
[36] Caſe LV.
[37] Caſe XXVII. LVI. LXXXVIII. See Traité de la Peſte, p. 393. Appendix,
[38] Caſe XIV. XVIII. XL. LXI. LXII.
[39] Caſe XL. LXI. LXII.

CHAP. III.

Deſcription of the Plague, arranged under Six Claſſes.

THE peſtilential caſes which fell under my obſervation at Aleppo, may be arranged under ſix claſſes. Of theſe the firſt four comprehend thoſe varieties of the diſeaſe, which, though they ſometimes in appearance nearly approach each other, are diſtinguiſhed pretty conſtantly by certain differences, either in the ſymptoms themſelves or in their ſucceſſion. The ſixth claſs, under the title of Anomalous, is allotted to complicate caſes, wherein the characters of more than one claſs ſeem to be blended; as alſo to ſuch where the concurrence or ſeries of ſymptoms was diſcordant, various, and in every ſenſe irregular.

CLASS FIRST.

The ſick in this claſs were ſometimes attacked ſuddenly with a loſs of ſtrength, a confuſion or weight in the head, a giddineſs that came and went, an oppreſſion about the prœcordia, and dejection of ſpirits. They were inclined to be ſilent, ſhowed anxiety in their aſpect, but made few or no complaints; and either having no febrile ſymptoms, or ſuch as were very obſcure, were frequently conſidered by the perſons about them as indiſpoſed in a ſlight degree. Theſe periſhed ſometimes within the twenty-four hours, ſometimes the ſecond or third day. They had neither buboes nor carbuncles, and it was very rare to find ſuſpicious marks of infection on the dead bodies.

Others, who at firſt were attacked in the ſame manner, became in a few hours more manifeſtly diſordered. Their eyes became muddy, the ſurface of the body cold, they grew drowſy and lethargic, and complained of pain at the heart. As the diſtemper advanced, they often loſt the power of ſpeech; the

ſkin

ſkin ſeldom recovered heat, or if it did, it was in irregular fluſhings of ſhort continuance, which ſoon gave way to cold clammy ſweats. The pulſe ſometimes remained nearly in its natural ſtate, but for the moſt part was low and quick. They were by turns delirious, confuſed, and ſenſible; but the comatous diſpoſition was the moſt prevalent. Towards the end they ſuffered inceſſant inquietude.

Some had a vomiting the firſt night, in others a diarrhœa ſupervened the next day, both or either, accelerating the fatal period; but theſe ſymptoms were leſs frequent than in ſome of the other claſſes.

Buboes appeared in none, except in a very few, who ſurvived the third day. Carbuncles were rarely met with ſooner than the month of May, which was later than the period when this form was predominant. Petechiæ, vibices, or broad livid roundiſh ſpots, occurred ſometimes, but were not common, and the two latter were ſeldom viſible till after death.

None of the ſick recovered, and moſt of them died the ſecond or third day; a very few lived to the fifth.

Theſe deſtructive forms of the diſeaſe prevailed moſt at the riſe of the plague in 1760, and its reſuſcitation in the ſpring of the two ſubſequent years, decreaſing always as the diſtemper ſpread: and though they were found diſperſedly in every ſtage of the peſtilential ſeaſon, yet the number of ſubjects of this claſs was proportionally very ſmall, compared with that of others.

Of the ſick who periſhed within the twenty-four hours, I ſaw none myſelf, and for that reaſon have ſaid nothing of the pulſe; the other circumſtances were collected from perſons of the family. Some were ſaid to have died within a few hours; but I am diſpoſed to doubt this fact, having in ſeveral inſtances, where I had

BOOK II.

an opportunity of making enquiry, found that matters had been inaccurately ſtated. The lower ranks of people pay little regard to ſlight diſorder, and ſeldom begin to reckon till the diſtemper has made ſome advance; hence the difficulty of determining the beginning of the malady, where it had not been marked by ſome ſtriking alteration: thus it appeared that perſons ſaid to have expired ſuddenly, though they had been ill only a few hours, had in reality been indiſpoſed one or two days. From a like inaccuracy has ariſen much of the difference and contradiction on the ſubject of critical days in the plague, and which muſt conſtantly happen where the reckoning commences at different periods.

Of ſuch as ſurvived only the firſt thirty hours, I had not an opportunity of ſeeing many inſtances; a phyſician in that country being ſeldom called in ſo early: beſides which, the period when that form was moſt prevalent was early in the ſeaſon, before the populace had taken alarm, and when all means were employed to conceal the diſtemper from the Europeans.

The total abſence of buboes in ſuch patients as periſhed ſuddenly, I have no doubt of, nor of their being, in general, very rare in others of this claſs: though I ſuſpect the buboes might ſometimes have been concealed, where the diſeaſe run out to the fourth or fifth day, and, for the ſame reaſon, that the reports of the ſtate of the corpſe were ſometimes not true.

That the plague, however, under a form of all others the moſt deſtructive, exiſts without its characteriſtic eruptions, or other external marks reckoned peſtilential, can admit of no doubt, and it is to be regretted that mankind have ſo often, from the abſence of theſe, been betrayed into errors of fatal conſequence on its firſt invaſion; at which early period human prudence can only be exerted, in the way of public defence, with any probability of ſucceſs

CHAP III.

CLASS SECOND[1].

The diſeaſe begun generally with a ſlight ſhivering or ſenſe of cold, which was ſoon ſucceeded by fever accompanied with giddineſs, head-ach, vomiting, and ſometimes looſeneſs[2]. The fever increaſing in the night the face fluſhed, the eyes gliſtened, and the patient either grew delirious, or became drowſy and comatous. The pulſe in this ſtage, uſually continued full and ſtrong; the thirſt was exceſſive, though the tongue was not parched, but the ſtomach retained little of what was drank, and the patient, haraſſed by the vomiting and other ſymptoms, paſſed a very unquiet night.

Towards day break, the fever abating, the ſick grew more compoſed. Where they had been delirious in the night, they uſually recovered their ſenſes in the morning, and did not loſe them again in the ſubſequent exacerbations through the day; though ſometimes diſpoſed to ramble a little or to talk incoherently. Where they had been comatous in the night, the morning remiſſion was leſs diſtinct, the lethargic diſpoſition remained, and either increaſed in the exacerbations or alternated with delirium, ſo that they continued drowſy or rambling all day.

The pulſe in the morning, ſtill kept up, more or leſs full[3], and the external heat was moderately feveriſh, but the ſkin for the moſt part was dry. The patient, though leſs unquiet, was more dejected. As the day advanced the pulſe began to alter, and other ſymptoms characteriſtic of infection ſucceeded, though not in a regular ſeries, or in all with equal rapidity; their acceſſion ſeemed to be haſtened by the vomiting; as alſo by the diarrhœa, which frequently ſupervened at this time.

[1] Appendix, Caſe I. II. III. VIII. IX. XIII. XIV. XVII. XX. XXVI. XLVII. XLIII. LXII. LXVIII. XCII. XCIV. XCVIII.

[2] Caſe II. XLIII. XX. XCII.

[3] Caſe XCVIII.

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The principal ſymptoms here alluded to were the muddy eyes and peculiar confuſion of countenance; a low quick equal pulſe; ſometimes low and fluttering[4], rarely intermittent. The tongue whitiſh, often unaltered, and rarely parched; the external heat moderately feveriſh, at other times intenſe, in irregular fluſhings; pain at the heart, or oppreſſion about the prœcordia; burning pain at the pit of the ſtomach; and inceſſant inquietude[5].

The oppreſſion at the prœcordia, and burning pain at the pit of the ſtomach, were ſometimes complaints from the firſt night, but are joined with the other ſymptoms referred to the ſecond day, as being more generally the time of their appearance.

The progreſs, more or leſs rapid, of the ſymptoms above recited, denoted more or leſs danger; but when to theſe were joined a faltering in the tongue, or loſs of ſpeech, while the ſurface of the body, loſing its natural or feveriſh heat, became cold and damp, with clammy ſweat, death was then impending and inevitable, though perhaps the fatal moment was ſtill at ſome diſtance[6].

In the evening of the ſecond day, the ſyndrome of ſymptoms became more and more alarming. As the night advanced all grew worſe, and if towards morning the patient appeared to lye more quiet, it ſeemed owing leſs to a change to the better, than to his ſtrength being exhauſted by the dreadful inquietude of the preceding eight hours.

It ſometimes happened, where the vomiting had ceaſed or abated early, that there was a tolerable remiſſion on the morning of the third day, which revived the expiring hopes of the

[4] Caſe III.
[5] Caſe XIV.
[6] Caſe I. II. XLVI.

aſſiſtants;

CHAP. III.

aſſiſtants: but the calm was always fallacious, and of ſhort duration; the exacerbations returning with equal or increaſed vigor, while the enfeebled powers of nature became leſs and leſs able to reſiſt.

In ſome, eſpecially where the debility had been haſtened by vomiting, looſeneſs, or hemorrhage, the third day proved fatal[7]; but the diſeaſe more commonly was protracted two or three days longer[8]: advancing ſo far regularly to its termination, that each night afterwards proved worſe than the precedent, and in the day, the intervening calms or remiſſions were ſo tranſient and obſcure, as to leave no room for hope. None of the ſick in this claſs recovered, whether the diſeaſe was left to itſelf or treated methodically.

The courſe of the buboes was of no material conſequence. They made their appearance commonly the ſecond day, oftner the third, and ſometimes later; a very ſmall proportion were without eruptions. But the buboes never approached to maturation here, and their advancing or not, were circumſtances which had no viſible effect in haſtening or retarding the termination of the diſeaſe.

Carbuncles, though more frequently met with than in the former claſs, were not common; and where they occurred, the ſuppuration ſometimes begun round the edges of the black cruſt, which rarely had time to caſt off: but they very often continued to ſpread, or, where the gangrene ſtopped, remained dry and ſhrivelled.

Petechiæ and vibices were ſometimes met with. Livid marks on the corpſe were more frequently obſerved than in the firſt claſs.

[7] Caſe III. VIII. LXII. XCII.
[8] Caſe IX.
[9] Caſe XVII. XX.

CLASS

CLASS THIRD[10].

The acceſs of the diſeaſe in this claſs, was only diſtinguiſhed from the former by the abſence of vomiting and looſeneſs, which, though they ſometimes ſupervened at a ſtage ſomewhat more advanced[11], never attended from the beginning. The other phœnomena, with very little variation in their ſeries, were exactly the ſame. The fever, in general, did not riſe ſo high the firſt night, nor was it accompanied with delirium, though always with much inquietude. The comatous diſpoſition ſeldom came on before the ſecond or third night[12].

The morning remiſſion, on the ſecond day, was more diſtinct than in the former claſs, and the ſucceeding exacerbations through the day were leſs formidable; the acceſſion of the peſtilential ſymptoms enumerated in the ſecond claſs[13], being here ſeveral hours later, and their progreſs, for the moſt part, leſs rapid. The ſecond night, however, was always a bad one, the patient being either delirious or lethargic.

A gentle ſweat early in the morning of the third day, ſometimes produced a change in appearance ſo favourable as to give ſome dawn of hope, but the quick recurrence of exacerbations more ſevere than ever, gave a ſurer preſage of what was to be dreaded[14].

This calm on the third was frequently precluded by the intervention of vomiting or looſeneſs, which ſeldom failed to haſten

[10] Appendix, Caſe VII. XIX. XXII. XXIV. XXVIII. XXX. XXXIII. XXXIV. XXXVI. XL. XLIV. XLV. XLVI. XLVIII. LIII. LIV. LV. LXI. LXVI. LXIX. LXX. LXXII. XCV. C. CII. CIV.

[11] Caſe XXXIII. XXXV. XLIV. XLVI. C.

[12] Caſe XXXIII. C.

[13] See page 165.

[14] Caſe XLVIII.

the

CHAP. III.

the cataſtrophe[15]; but, otherwiſe, few died ſooner than the fifth day. In ſuch as died on the fourth, the comatous diſpoſition had come on early, and been joined with other bad ſymptoms, as faltering of the tongue, loſs of ſpeech, and ſometimes petechiæ[16]. The day moſt commonly fatal was the fifth, but a few lived to the ſeventh, and even to the eighth.

The calm on the third day was followed by alarming exacerbations, in which the pulſe was uſually low and quick, or roſe by ſtarts, being much more variable than in the firſt two days Sometimes a diſpoſition to ſweat was obſerved towards the end of theſe exacerbations, eſpecially in the mornings; but, in general, the ſkin remained dry, or where a ſweat broke out, it proved ſhort and ineffectual.

The courſe of the diſeaſe on the fourth and fifth days, was nearly the ſame as on the third, allowing for the progreſſive aggravation of ſymptoms, which in all caſes denote impending danger. The nights continued to be reſtleſs, and the remiſſions became gradually more obſcure. In thoſe who ſurvived the fifth day, the febrile ſymptoms continued high, the pulſe alſo kept up, and there was often a tendency to ſweat, inſomuch that appearances were ſometimes ſo favourable as to render the death of the patient on the ſeventh unexpected[18]. But, in general, the iſſue of the diſeaſe might be gueſſed from the fourth day.

Buboes, for the moſt part, made their appearance earlier than in the former claſs, though ſometimes they retarded to the third, but the caſes were very rare where they did not appear at all[19].

[15] Caſe XXX. XIX. LIII.
[16] Caſe XXX. XXXIV. C. CIV.
[17] Caſe LIV. LXX. XXXVI.
[18] Caſe LIV.
[19] Caſe XXIV.

In

BOOK II.

In regard to carbuncles, vibices, petechiæ, and livid ſpots, after death, nothing need be added to what has been remarked in the ſecond claſs: with which alſo the preſent agrees in its mortality, for none of the ſick, ſo far as I ſaw, recovered.

The difference between the third and ſecond claſs, conſiſts in the abſence of vomiting at the beginning; the later acceſſion of coma and other bad ſymptoms; and a ſlight tendency to perſpiration, which very rarely occurred in the ſecond. Theſe ſhades of diſtinction may not, perhaps, be ſtrictly ſufficient to conſtitute a variety; but as vomiting was abſent, at the beginning, in a great number of caſes, in which the progreſs of ſymptoms agreed, in general, with the deſcription now given, I judged it better to allot a diſtinct claſs than to blend both in one: without, however, in a matter merely arbitrary, contending for the neceſſity of the ſeparation. It is certain that from the ſecond or third night the courſe of ſymptoms, in both claſſes, varied very little, and the termination of the diſeaſe was in both the ſame; it may be added, that they reigned together through all the periods of the peſtilential ſeaſon, but were moſt prevalent in its augment; for at its height, and in its decline, they gave place to varieties of the diſeaſe leſs deſtructive.

CLASS FOURTH.

The fourth claſs was the moſt numerous of all: comprehending thoſe forms of the diſeaſe which, from the various and ſudden changes in their courſe, ſo often, though not conſtantly, met with, cannot eaſily be repreſented in a conciſe and connected deſcription. I therefore enter on the attempt with diffidence; and, as a ſupplement for defects, muſt refer to the caſes themſelves noted below [20].

[20] Appendix, Caſe V. VI. X. XI. XV. XVIII. XXVII. XXXII. XXXVII. XXXVIII. XXXIX. XLI. XLVII. L. LVIII. LIX. LX. LXIV. LXXVI. LXXXI. LXXXIII. LXXXV. LXXXVII. LXXXVIII. XC. XCVI. XCVII. XCIX. CI. CIII. CV.

The

CHAP. III.

The diſtinctive marks of this claſs are, the continuance of the inflammatory or febrile ſymptoms with leſs interruption than in the former; a pulſe more conſtantly ſuſtained, or ſoon recovering itſelf, when ſunk and hurried in the exacerbations; the length and rigour of the exacerbations decreaſing in the advance of the diſeaſe; and, above all, the prevalent tendency to a favourable diſcharge by the ſkin, with the critical ſweats on the 3d, 5th, or ſubſequent days.

Theſe, in general, were the diſtinctive marks, but the concurrence of all is not to be expected in each caſe; and though, in general, the abſence of a tendency to ſweat was an unfavourable ſign in the prognoſtic, yet the Journals furniſh inſtances of recovery without any ſenſible diſcharge whatever by the ſkin. It will alſo readily be underſtood, that what was remarked above of exacerbations in the advance of the diſeaſe, refers to caſes terminating happily: in others the exacerbations were, aggravated by the adjunction of mortal ſymptoms.

The phœnomena attending the acceſs of the diſeaſe, varying in degree, were nearly the ſame as deſcribed in the two former claſſes; vomiting was a concomitant in about one-fourth part of the ſick.[21] The fever, for the moſt part, was very moderate the firſt night, very rarely accompanied with delirium, and almoſt never with the comatous diſpoſition.

From the vigour or ſluggiſhneſs of the acceſs, no certain judgement could be formed of the event;[22] thoſe often eſcaping favourably

[21] Caſe X. XI. XVIII. L. LIX. XCVII.

[22] M. Bertrand, whoſe deſcription of the diſeaſe I eſteem a good one, ſeems to be of a different opinion. " La violence du mal répond toujours à celle des ſymptômes qui l'annoncent, en ſort que ſi le froid eſt long, le mal de tête & le vomiſſement violens, on doit s'attendre a une grande maladie. Quelque fois ce mal a commencé ſans aucuns ſymptôme par un petite fiévre qui véritablement augmentoit bientôt; &

BOOK II.

ably in whom the febrile ſymptoms roſe higheſt the firſt night[23], whilſt others, where the attack ſeemed ſlight, ſuffered a tedious illneſs, or periſhed. But this is to be underſtood of febrile ſymptoms; for the more formidable peſtilential ſymptoms ſeldom or never, in this claſs, came on till a more advanced ſtage.

The buboes and carbuncles commonly made their appearance the firſt day; but it was not unuſual to ſee a ſucceſſive eruption of theſe tumours in the courſe of the diſeaſe,[24] as will be explained more fully hereafter.

The remiſſion on the morning of the 2d day, was generally leſs obſcure than in the other claſſes, even, although no diaphoreſis had preceded. The pulſe was lower but not ſmall; the external heat temperate. The ſick complained of head-ach, of pain from the tumours, and ſome were haraſſed by the vomiting; but for the moſt part the vomiting, where it accompanied the acceſs, ceaſed the firſt night.

As the day advanced, the ſick became more unquiet, changing variouſly at ſhort intervals. Sometimes in the forenoon, a more regular exacerbation came on, without any preceding ſenſe of cold. The pulſe roſe; the head grew more confuſed, and ſome ſhowed a ſlight tendency to coma. The external heat was temperate, the tongue moiſt, and yet they complained of thirſt: at other times, ſenſation in all other reſpects unimpaired, they had no deſire to

ces heureux commencemens étoient preſque toujours d'un bon augure pour le malade." *Traité de la Peſte*, p. 371.

With regard to the length of the cold fit, it appeared to me of leſs conſequence than the vomiting, &c. But his remark on ſymptoms indicating the approach of a dangerous diſeaſe, held true only, at Aleppo, in the 2d and 3d claſſes, where the beginning of the diſorder was accompanied with alarming ſymptoms; but not ſo in the 1ſt and 4th claſſes, where the mild appearances at firſt, proved very often deceitful.

[23] Caſe CI.

[24] Caſe XV.

drink,

drink, though the pulſe, the dry tongue, and heat of the ſkin denoted a higher degree of fever. CHAP. III.

This exacerbation uſually declined with a partial ſweat, but notwithſtanding the mitigation of the fever, the patient, in appearance, was more diſordered; he complained of oppreſſion at the heart, and illneſs which he could not deſcribe. As night approached he grew gradually worſe. The feveriſh heat was more intenſe; the pulſe leſs full, but very quick; the inquietude increaſed, the eyes became muddy, and he was much diſpoſed to talk incoherently, or to ſlumber. A ſweat breaking out early in the morning, brought on a mitigation of all theſe ſymptoms, in proportion as it happened to be more or leſs profuſe; and even without a ſweat, ſome degree of mitigation uſually was obſerved.

The morning ſweat on the third day, in ſome caſes proved completely critical; but more commonly produced only a remiſſion ſo favourable as to encourage the expectation of a more perfect criſis on the fifth; but where the patient neither ſweated on the third, nor a ſenſible remiſſion took place on that day, danger, in ſome degree, was always to be apprehended.

It ſhould be remarked, that in the remiſſions here alluded to, the pulſe not only became ſlower, but ſofter and fuller, eſpecially after the ſweat; and, though the eyes ſtill remained muddy, the anxiety and inquietude had abated, the intellectual faculties were clearer, and the patient found himſelf every way better.

The exacerbations in the courſe of the third day, though not protracted, were pretty ſevere; and the third night was again diſturbed by the recurrence of the ſame ſymptoms. But the pulſe, though variable, remained in general more full and ſtronger than during the exacerbations of the ſecond and third claſs, at the ſame period; where the pulſe, when it once ſunk, however

BOOK II. it might vary in quickneſs, ſeldom or never roſe to the ſame ſtandard as before.

The remiſſion on the morning of the fourth day, was ſometimes preceded by a ſweat, on which the length or ſhortneſs of its duration ſeemed to depend: but the ſweat was never ſo profuſe as that of the third or the fifth. The exacerbations which followed were nearly the ſame as the day before; but the nocturnal exacerbation was commonly more ſevere, and continued till ſuch time as a profuſe ſweat broke out, which was of various duration, and left the patient extremely faint and languid, but in every other reſpect manifeſtly relieved[25].

After the ſweat on the fifth, the ſubſequent exacerbations became ſlighter and ſlighter, and the buboes for the moſt part advancing favourably, little or no fever was left remaining after the beginning of the ſecond week: except perhaps ſymptomatic heats occaſioned by the eruptions. But where the ſweat on the fifth proved imperfectly critical, milder exacerbations, which uſually declined in gentle ſweats, continued to recur till the ſeventh day, when a ſecond profuſe ſweat placed the patient beyond all danger[26].

The ſyndrome of ſymptoms deſcribed as acceding the ſecond day, ſometimes kept back to the third or fourth; in which caſe a critical ſweat was not to be expected ſooner than the fifth, or rather the ſeventh. The acceſſion of theſe ſymptoms, ſometimes retarded even later than the fourth, but then the future courſe of the diſeaſe became more irregularly various[27]. The exacerbations declined ſometimes with, ſometimes without ſweats, and the patient paſſed ſlowly through the fever, without any ſenſible cri-

[25] Caſe XXXVII. XXXVIII. CI.
[26] Caſe LXXV. LXXXIII. XC. XCVI.
[27] Caſe LXXI.

tical

tical evacuation whatever[28]. It may be remarked, however, that the buboes, for the moſt part in this claſs, came to maturation; but generally the fever had diſappeared long before; and in caſes where theſe tumors had diſperſed, there was very little difference obſerved in the courſe of the fever, if the patient had ſweated, or in the quickneſs of recovery[29]: but where no critical ſweat happened, recovery was ſlower[30]. As to any particular tendency to relapſe, where the buboes had diſperſed[31], I met with no inſtances in favour of ſuch an opinion.

From the tardy acceſſion of formidable ſymptoms, it ſometimes happened that thoſe who for ſome days ſeemed to be ſlightly infected or going on proſperouſly, came to ſuffer a tedious illneſs[32], or died, contrary to expectation[33]; while more alarming attacks terminated happily[34]. In the latter caſe, the event remained doubtful to the fifth day; in the former, till the end of the week. At thoſe periods a conjecture might be ventured with tolerable ſucceſs; though caſes alſo occurred wherein matters remained in ſuſpenſe ſeveral days longer.

Hemorrhage[35], looſeneſs[36], petechiæ[37], loſs of ſpeech[38], &c. and pregnancy[39], were circumſtances, as in the former claſſes, that enhanced the danger; but in this claſs exceptions were met with to the general rule[40].

[28] Caſe XCVII.
[29] Caſe XC. XCI. CI.
[30] Caſe XI. XXXVII. XLI.
[31] Relat. Hiſtorique, p. 450, and Traité de la Peſte, p. 519, 528.
[32] Caſe XI. XXXVII. XLI.
[33] Caſe VI. XXVII.
[34] Caſe CI.
[35] Caſe LXXXIII.
[36] Caſe XXXIX CV.
[37] Caſe LXXII.
[38] Caſe
[39] Caſe XVIII. LXIV.
[40] Caſe LIX. LX. LXXXVI. LXXXVII. XCIX. CIII.

There

BOOK II.

There is an inſtance of a pregnant woman dying the third[41]; but, in general, the ſeventh was the fatal day; ſome, very rarely, ſtruggled to the eleventh[42].

The diſeaſe, under the forms arranged under the fourth claſs, begun to be prevalent before the plague had reached its height, and continued through its decline till its final ceſſation. It appeared to me, that more than one half of the infected of this claſs recovered.

CLASS FIFTH.

To this claſs are referred caſes of ſlight infection, wherein the more formidable peſtilential ſymptoms never concurred, and all the infected recovered[43].

The acceſs here was often attended with ſo little apparent diſorder, that the eruptions gave the firſt alarm[44]; and the fever, which came on afterwards, was frequently ſo ſlight as not to confine the ſick to the houſe: others found themſelves indiſpoſed for two or three days, but were not ſenſible of any febrile heat whatever.

But in this claſs the diſeaſe did not always invade thus inſenſibly[45]. The febrile ſymptoms, eſpecially the firſt three days, ſometimes run pretty high; and the fever afterward, in nocturnal exacerbations particularly, run out to the end of the week, or longer: but as there was no concurrence of alarming ſymptoms,

[41] Caſe XVIII. LXIV.
[42] Caſe XXXII.
[43] Appendix, Caſe XXIX. XXXI. XLIX. LII LVII. LXIII. LXXIII. LXXV a. LXXV b. LXXVIII. LXXIX. LXXXII. LXXXIV. LXXXVI.
[44] Caſe LXXIII. LXXVIII. LXXXIV.
[45] Caſe XXIX. XXXI. LII. LXIII. LXXIII.

and the exacerbations, terminating for the moſt part in ſweats, gradually diminiſhed in force after the third or fourth night, it was not difficult in the worſt caſes to foretell the event at that period, nor neceſſary in others to defer a deciſion ſo long.

All the infected had buboes or carbuncles, and very often both eruptions concurred in the ſame ſubject. Perſons not confined by indiſpoſition, were often by the inguinal buboes prevented from walking abroad. The carbuncles conſtantly formed the black cruſt, and then ſuppurated; the buboes in one-third of the ſick diſperſed. The diſperſion of the buboes was never obſerved to be attended with bad conſequences, notwithſtanding the general neglect of purging in the decline of the diſeaſe: indeed, very few of the infected had recourſe to remedies, topical applications excepted, unleſs perhaps a bleeding at the beginning, where the febrile ſymptoms run high.

This claſs was nearly as numerous as the fourth; but began to be predominant rather later, and reigned moſt of all in the decline of the plague in 1762.

CLASS SIXTH.

This claſs being reſerved for ſuch caſes as were dubious, anomalous, or extraordinary, varying more or leſs in ſome material circumſtances from any of the foregoing claſſes, admits of courſe of no general deſcription. The particular caſes, to which have ſometimes been ſubjoined occaſional remarks, may be conſulted, agreeably to the references made below to the journals[46].

[46] Caſe IV. XII. XVI. XXI. XXIII. XLII. LI. LXV. LXVII. LXXI. LXXVII. LXXIX. LXXX. LXXXIX. XCI. XCIII. CVI. CVII. CVIII. CIX.

CHAP. IV.

Of the Peſtilential Eruptions.

I PURPOSE in this chapter to give an account not only of the buboes and carbuncles, but likewiſe of the other *exanthemata*, and changes in the colour of the ſkin, obſerved at Aleppo in the courſe of the diſeaſe.

The two firſt are equally diagnoſtics of the true plague; their preſence, ſeparately or in conjunction, leaves the nature of the diſtemper unequivocal: but fatal has been the error of raſhly, from their abſence, pronouncing a diſtemper not to be the plague,[1] which in the ſequel has depopulated regions, and which early precaution might probably have prevented from ſpreading.

The infected of the firſt claſs ſeldom or never had buboes or carbuncles; and in a few of the ſecond, where the diſeaſe proved quickly fatal, theſe eruptions were likewiſe abſent: but allowance made for thoſe exceptions, which were proportionally rare, the buboes may be conſidered as conſtantly concomitant in the plague. It is not the ſame in reſpect to the carbuncles, which were remarked in about one-third of the infected only; and, for the moſt part were conjoined with the buboes, the inſtances being rare of their exiſting alone. They very ſeldom, at Aleppo, were obſerved earlier than the month of May, that is, till after the diſtemper had ſpread and raiſed alarm; they of courſe were not to be expected in the firſt peſtilential accidents: and as the forms of the diſeaſe

[1] Thomas Phayer, ſuppoſed to have practiſed in the reign of Henry VIII, makes a very proper remark on this ſubject. After mentioning the buboes and carbuncles as infallible ſigns of the plague, he adds, "Notwithſtanding every man infected with "that peſtilence hath not ſuch ulcers, blotches or ſores, wherefore yee muſt take "heede of the other ſigns hereafter that ye bee not deceived for lack of the ſaid apoſtimes." Treatiſe on the Plague by T. P. republiſhed by a phyſician, Lond. 1722, p. 30.

at

at its riſe, or its reſuſcitation early in the ſpring, were chiefly of the firſt and ſecond claſſes, wherein buboes likewiſe were often abſent, the difficulty of detecting an incipient plague, was conſequently increaſed.

The inguinal, axillary, parotid, maxillary, and cervical glands, were the ſeat of buboes, taken in an extenſive ſenſe. But the firſt were the moſt commonly affected; the latter two were ſeldom obſerved to ſwell without either the parotid ſwelling at the ſame time, or ſoon after, or a carbuncle protruding near them: they never were the ſole peſtilential eruptions, and I recollect few inſtances of their coming to maturation.

The inguinal peſtilential bubo ſometimes appeared in the ſame place as the ordinary venereal tumor, but for the moſt part was ſituated lower in the thigh, near the crural veſſels:[2] a circumſtance which often miſled thoſe not accuſtomed to ſearch, who expected to find it higher in the groin. A burning ſhooting pain was often felt in the part, before any ſwelling could be perceived by the finger;[3] but the tumor, when once diſtinguiſhable, always gave pain upon preſſure, though the ſick ſometimes, in hopes of concealing their diſorder, aſſerted the contrary, and pretended the ſwelling had been of long ſtanding.

In the incipient ſtate of the bubo, a ſmall, hard, round tumor, was perceived by the finger, more or leſs deeply ſeated,

[2] See on this ſubject Bindius Loimograph. lib. ii. p. 84.

The ſite of the inguinal bubo has alſo been well obſerved by the French phyſicians: "Les bubons étoient ordinairement ſituées aux aînés & ſouvent au deſſous faiſant "ſur-tout gonfler les glandes lymphatiques qui ſont placées à l'endroit de la guaine "des vaiſſeaux cruraux." Traité de la Peſte, p. i. p. 236.—In another place, the ſituation of the bubo is thus deſcribed, "Les deux bubons étoient ſituées au deſſous "des aînes à la partie ſupérieure de la cuiſſe, ou ſe reuniſſent les vaiſſeaux lymphatiques "qui rapportent la lymphe des extrémités inferieures." p. 288.—M. Bertrand deſcribes the ſituation of the buboes thus, "Ils ſortoient aux aînes & ſouvent au deſſous & à ces glands qui occupent la partie ſupérieure de la cuiſſe. Traité, p. 374.

[3] Caſe LXXIX, LXXXVII.

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but for the moſt part moveable under the ſkin, which was yet ſoft, of its natural colour, and not protuberant. As the tumified gland increaſed in ſize, it commonly took an oblong form, became leſs moveable, and the teguments thickening were protruded into a viſible circumſcribed tumor, without outward inflammation: it did not externally aſſume the oblong ſhape till it had advanced further.

In ſome the tumor was exquiſitely painful, in others obtuſely ſo, according to the conſtitutional or morbid ſtate of ſenſibility, but was never indolent. Its progreſs to maturity was more or leſs rapid not influenced, in all appearance, by ſtrength of conſtitution or the concurrence of alarming ſymptoms: whence in the prognoſtic, little reliance was had on the courſe of the bubo in the firſt week: for though it was always a deſirable circumſtance the tumor ſhould come forward, yet it often happened that the caſes wherein appearances in that reſpect had been moſt flattering, terminated fatally, whilſt, in more fortunate caſes, the iſſue often remained long dubious, and at length the tumor diſperſed, contrary to expectation.

The tumor, when once viſibly formed, either remained a ſhort while in the ſame ſtate, or, what was more uſual, advanced; it very rarely in the firſt week was obſerved to recede. Its progreſs indeed afterwards was more various, alternately ſhowing ſigns of ripening and diſperſing. But theſe variations chiefly reſpected the teguments, for the gland itſelf, when carefully explored, was ſeldom found to alter, and where the tumor actually diſperſed, it was not ſuddenly, but by ſlow degrees. Thus from the alteration in the teguments alone, the whole tumor, on a ſuperficial view, ſeemed to leſſen or increaſe, though the gland remained the ſame; and I am inclined to think this deception was often the cauſe of the buboes being ſaid to fluctuate, or to vaniſh in appearance entirely, and again return; at the ſame time I am far from thinking that this fluctuation was never real[4].

[4] See Hodges and Ruſſell.

The ſkin ſeldom became inflamed in any degree, in the firſt week, though tenſe and very painful; hence in the fatal claſſes it generally retained the natural colour. A few extraordinary caſes were met with, in which the bubo itſelf, or the ſkin near it, aſſumed a pale blueiſh hue[5].

Where the tumor advanced rapidly, and was uncommonly painful, I ſometimes apprehended an approaching mortification, but I never ſaw ſuch an event take place externally, and had no opportunity by diſſection of aſcertaining the ſtate of the gland[6]. I was informed that in ſome caſes the ſkin of the bubo, which before had not been inflamed, became livid after death.

The bubo ſeldom began to inflame externally, or to ſhow unequivocal ſigns of coming to maturation, till the fever had abated and was manifeſtly on the decline. This happened at various periods, but rarely ſooner than the eighth or ninth day. The external inflammation then advancing, the tumor by degrees ſoftened, and opened of itſelf between the fifteenth and twenty-ſecond. The fluctuating buboes frequently retarded, ten days longer, the inflammation with the tenſion of the ſkin abating and increaſing by turns, and the tumor from the form of an egg becoming flattiſh. After thus alternating ſeveral times, it at length

[5] In a boy who died the fourth day, whom I viſited the third, I found an axillary bubo, the upper part of which was of a pale bluiſh colour. See alſo Caſe LXVI.

[6] Some of the French ſurgeons who attempted the cure of buboes by an early extirpation of the gland, have diſtinguiſhed ſeveral varieties of theſe tumors, which could never have been known but by diſſection. M. Geoffroy, in particular, reckons three ſorts that fell under his obſervation, in the third of which the glands were always found in a gangrenous ſtate. Traité de la Peſte, P. i. p. 431. See Obſ. iii, vi, vii, &c.

The Obſervations of M. Geoffroy afford many curious remarks. They are rather too much interlarded with theory; and he, in general, aſcribes too much to the tumors, as if the alarming ſymptoms, ſo common in the diſeaſe, aroſe chiefly from the ſtate of the morbid glands.

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Such was, in general, the progreſs of the tumors, when treated ſimply with common poultices. Where ſtimulant applications were employed, ſome variation was produced in the period of external inflammation, but little or none, ſo far as I could obſerve in the ſuppuration of the gland: that, in all appearance depending, as in moſt other caſes, more on the internal ſtate of the diſeaſe than on topical remedies. The ſuppuration however of the gland being ſometimes complete, while that of the teguments went on ſluggiſhly, the matter already formed was unable of itſelf to effect an exit, a circumſtance manifeſt ſometimes from the touch; ſometimes from the troubleſome ſinuous abſceſſes, conſequent to the neglect of an artificial opening in proper time; but the rare occurrence of ſuch caſes, in compariſon with the multitude wherein the buboes left to open ſpontaneouſly, were ſucceſsfully cured with the moſt ſuperficial dreſſings, rendered it more than probable, that the internal and external ſuppuration, where not diſturbed by the officious interpoſition of art, in general advanced conjointly in juſt meaſure, and the ſkin either burſt at the proper time, or the delay of a few days proved of little or no detriment.

The buboes that did not terminate in ſuppuration, uſually diſperſed gradually, and diſappeared entirely in the ſecond month; but of the inguinal tumors, ſome acquiring a ſchirrous hardneſs, remained invariably in an indolent, indurated ſtate, for many months before they began to diſperſe: I ſaw none that did not diſperſe ultimately. A ſimilar induration of the glands was likewiſe obſerved in caſes where the tumor, ſuppurating partially, had diſcharged by a ſmall orifice, and where the cure was rendered extremely tedious from the orifice repeatedly cloſing and opening; a circumſtance in ſome meaſure owing to neglect, or to ill-conducted ſurgery.

In

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In a very large proportion of the ſick, the buboes made their appearance in the courſe of the firſt day; in the fifth claſs, which was very numerous, they often were the firſt ſymptom of infection[7]. But the period of eruption having been more particularly marked under the reſpective claſſes, it remains only to ſay ſomething of the ſucceſſion of theſe tumors, where more than one was found in the ſame ſubject.

In general, ſeveral hours intervened between the eruption of ſuch buboes, and an exacerbation was often (though not always) obſerved to precede the protruſion of ſuch as appeared later than the third or fourth day[8]. The number of theſe acceſſory buboes were two or three, and the time of their eruption various: the fifth, ſeventh, eighth, tenth, or thirteenth day, and even ſo late as the twenty-fourth and twenty-eighth[9]. Beyond theſe limits new buboes were deemed of an ambiguous kind, and will hereafter come under conſideration under the head of re-infection. Sometimes all the acceſſory buboes came to ſuppuration[10], but for the moſt part ſome of them diſperſed.

As more than one bubo appeared in the ſame ſubject, ſo likewiſe were they ſometimes conjoined with carbuncles. This was obſerved in a much larger proportion than the concurrence of inguinal and axillary buboes, or of either with parotids.—A table intended to be ſubjoined will exhibit in one view the age and ſex more particularly ſubject to the ſeveral eruptions, the reſpective frequency of the different buboes, and their various conjunction with each other, as well as with carbuncles; and as I ſhall add a few remarks on that table, it were needleſs to ſay more on the ſubject at preſent.

[7] Appendix, Caſe LVIII.
[8] Caſe LXV. CIII. CVIII. CIX. CX.
[9] Caſe CIX. CX.
[10] Caſe LXV.

The

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The courſe of axillary buboes varied little from that of the inguinal; their ſituation, where they grew to any bulk, rendered them more troubleſome, but, I think, they more rarely came to ſuppuration.

Beſides the buboes hitherto mentioned, there was another tumor ſometimes met with, to which in the journals, by way of diſtinction, I have given the name of ſpurious bubo, not being acquainted with one more proper[11]; the natives give it the ſame name as the other buboes[12].

It begun in the form of a ſmall, hard, glandular ſwelling under the ſkin, not ſo intenſely painful as the ordinary bubo. The gland appeared to be fixed, but the ſkin, till it became thick and inflamed, could be moved by the finger as if not adherent. This, however, is aſſerted only from a few caſes where I had an opportunity of handling the incipient tumors; for, in general, they were in an advanced ſtate before I ſaw them. They ſometimes came to ſuppuration in the ſame manner as the others, but in general more ſlowly. The ſkin retained its natural colour, till the ſixth or eighth day, that the ſwelling had become conſiderably protuberant: a ſufficient diſtinction from the furuncle or eryſipelatous phlegmon. The pain, ſubſequent to the inflammation, depended partly on the ſite of the tumor. They ſometimes diſperſed, but moſt of thoſe I ſaw came to ſuppuration.

They were obſerved on the head, the forehead, the throat, the ſhoulder, above the clavicle, the neck, on or above the ſcapulæ, the back, the ſide, under the breaſt, the belly, the hip, hind part of the thigh, near the ham, the leg, the ſcrotum, the arm near the uſual place of iſſues, inſide of the arm, near the elbow, outſide of the fore arm, and near the wriſt. Thoſe on

[11] Caſe V. XXX. LXXX. LXXXI.

[12] See Bindius, lib. ii. p. 85.

the

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the ſcapulæ or back grew ſometimes to a large ſize, and from the omiſſion of a timely inciſion were apt to produce troubleſome abſceſſes; in other parts, I never ſaw the largeſt exceed the ſize of a middling hen egg; and, uſually opening of themſelves ſooner or later, they healed kindly.

I obſerved none appear earlier in the diſeaſe than the ſecond or third day. I ſeldom found them alone, but commonly in concurrence either with buboes or carbuncles, without, however, any ſympathetic connection; being protruded at different times, and in parts diſtant, or on different ſides[13].

[13] It is a remark of Diemerbroeck, that Zacutus Luſitanus differs from all other practitioners, in pretending to have met with buboes in other places than the groin, axilla, &c. "Se in magna quadem peſte, non tantum in dictis locis (retro Aures, "Collo, &c.) ſed in aliis quoque corporis partibus, ſimul multos bubones vidiſſe, "ut in capite, in Nucha, in humeris, thorace, umbilico, femure & tibia, ſed cum "talibus bubonibus omnes ægros periiſſe." Diemerbroeck regards all this as a miſtake; but that Zacutus muſt have met with the tumors he mentions, however denominated, can hardly admit of a doubt. De Peſte, p. 66.

I find nothing on the ſubject in Hodges; but in the plague of Dantzick, in 1709, Doctor Gotwald mentions furuncles, which he ſays, "differ from common buboes "in that they appear moſtly in the fleſhy parts, to the number of five, ſeven, or "nine in one body. They are ſometimes red and appear more prominent than the "buboes, with very violent pains, diſturbing the patient's reſt. They are always "attended with fever, and a pain in the back and belly, the other ſymptoms are "much the ſame as in buboes." Goodwin's Hiſtorical Account, p. 49.

M. Geoffrey, a French ſurgeon of Provence, in 1720, takes notice of malignant abſceſſes, which he ſays, differs from the bubo in the matter not being contained in a cyſt, p. 423. "Les abcès malins que j'ai vûs en pluſieurs partie du corps pendant "le cours de cette maladie dans cette ville, ſont comme des tumeurs froides. La "partie où eſt la tumeur eſt ſans inflammation. S'il ne ſuivent áucun cours de "ventre les autres ſymptômes ne ſont pas fâcheux. Je les traite comme la premiere "eſpece de bubons. La matiere qui en ſortent eſt bien différente de celle de ces "derniers. Je l'ai trouvée ſouvent de la couleur du petit lait, auſſi rariſiée, & très "puante, comme on verra dans un Obſervation d'une fille de 25 Ans. Ce que j'ai "remarqué de particulier dans ces abces malins, à quoi je prie le lecteur de faire "attention, c'eſt de petit vers vivans. Traité de la Peſte, p. i. p. 435. See Obſ. "v. viii."

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The parotids ſwelled more rapidly, grew to a larger ſize, and were more tedious in coming to ſuppuration than the other buboes: for the moſt part indeed, they remained indurated a conſiderable time, and then diſperſed ſlowly. Where they came to ſuppuration, it was, in general, partially, the reſt of the tumor remaining hard, and the orifice of the abſceſs cloſing and opening repeatedly; a circumſtance owing probably to improper treatment, for the lancet was ſeldom employed. Where the caſe terminated fatally, they never became ſoft, though ſometimes inflamed externally; but, increaſing to a large ſize, the patient periſhed as if by ſuffocation [14].

The parotid was moſtly incident to children and youth, and, where it happened to be the ſole eruption, portended no good. The glands on both ſides ſometimes were affected; more uſually on one ſide only. Where they advanced, accompanied with much pain, ſome of the neighbouring glands uſually ſuffered from ſympathy, the pain and ſwelling of which decreaſed with that of the parotid.

The cervical and maxillary glands were alſo, however, originally affected. In the firſt caſe, one or two glands only came forward, the others remained ſcattered under the ſkin, like hard peas, as often happens in common colds, or in children who have got the tinea. Theſe original tumors were properly buboes; the others never came to ſuppuration, whether produced from the pain of the parotid or of a carbuncle ſeated in their vicinity. The firſt ſometimes came to ſuppuration, but moſt of thoſe I ſaw, where the patient recovered, diſperſed. I never found them the ſole peſtilential eruption.

It has been already remarked, that carbuncles were ſeldom met with earlier than the month of May, and therefore, previouſly to that period, the common peſtilential tumor was the bubo;

[14] Caſe IV. XXVII. XXXII. LXIV. LXVI. LXXX. XCIX.

it may be added that the carbuncle growing rife in the progreſs of the ſummer, became gradually leſs common in the autumn, and very rarely was obſerved in the winter. CHAP. IV.

The ſame eruption appears under various forms, as it happens to be viewed in its different ſtages, and hence, perhaps, the varieties of the carbuncle have ſometimes been erroneouſly multiplied.[15] I will not be confident of the not having fallen into the like

[15] The ſame carbuncle varies its appearance very much in its progreſſive ſtages, and opportunities are not frequent of inſpecting them the moment of their eruption. In this reſpect, the ſimilitude at firſt, of thoſe I have deſcribed as different, may be greater than I imagined; for I had occaſion to ſee very few till ſeveral hours after their eruption.

M. Geofroy, a very active and intrepid practitioner of Provence, obſerved three ſorts of carbuncles. "La première étoit rouge, avec une petite point noir au milieu. "La ſecond étoit de couleur de citron, & la peau ſeche comme un parchemin. La "troiſième étoit d'abord toute noire. Ce ſont ces derniers charbons qui ont regné "plus que les autres." Traité de la Peſte, p. i. p. 436.

I think there can be little doubt that this deſcription was drawn from carbuncles viewed at different periods: which is rendered ſtill more probable from his mentioning the third ſort as being the moſt common; for the ſeveral carbuncles, however different in their early ſtage, at a certain period became black, and many of them in the covered parts of the body, had arrived to that ſtate before they were obſerved by the attendants. It is very improbable that a carbuncle ſhould be black the inſtant of its protruſion, and no ſuch circumſtance is mentioned by contemporary obſervators. To ſuppoſe all the three ſorts of M. Geofroy to have made their firſt appearance under the form of ſmall red pimples, will be more agreeable to general experience.

"Carbunculus—fere autem oritur ex puſtula exili, milii ſemenis magnitudine "interdum vero multæ proſiliunt, primo quidem pruritu, deinde rubore, ardore "doloreque vehementi. Hoc vero ſenſim increſcente, pars uritur, cruſtaſumque "ulcus quaſi candenti ferro inducitur, idque vel nigrum vel cinereum. Nonnun- "quam et a cruſtuoſo ulcere, ſive puſtula initium ſumit." Foreſtus, lib. vi. Obſ. 12. Schol.

Diemerbroeck deſcribes the commencement of the carbuncle in the ſame manner. De Peſte, p. 65.

According to Hodges, "The carbuncle is a ſmall eruption whoſe contents are "ſoon diſcharged, after which it appears in a cruſty tubercle, about the bigneſs of a "millet ſeed, gradually ſpreading, and encompaſſed with a very fiery red circle."

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like miſtake. The ſeeming varieties that came under my obſervation were five, which I ſhall attempt to deſcribe; but at the ſame

" In the beginning the part is affected with a ſharp pricking pain, and in a little " time becomes extremely hot, when the cuticile is raiſed up into a bliſter containing " a thin ichor. When this bliſter is broke an eſchar is left behind, which cruſts " over, now ſooner, now later. The ſize and colour of the carbuncle is uncertain. " When the inflammation is at its height, it is very red, for the moſt part duſky, " often livid, and ſometimes black. Loimologia, p. 122, 127.

The ſame author, in a letter to a perſon of quality, May 1666, p. 25. " A carbun- " cle is a peſtilential ſore, appearing at firſt with a very ſmall puſtule, and a circle about " it of a red flaming colour; which puſtule either opening, or rather the liquor in it " being ſpent by the extreme heat of the adjacent part, ſoon hardens and grows " cruſty, the encompaſſing inflammation ſpreading itſelf, and by reaſon of the corro- " ſive quality of the humour, cauterizing that place where it fixes." Collection of ſcarce Pieces on the Plague, Lond. 1721.

The Montpelier phyſicians deſcribe the carbuncles thus: " Ils paroiſſent d'abord " ſous la forme d'une puſtule ou tumeur blanchâtre, jaunâtre, ou rougeâtre, pâle dans " ſon milieu, ou tirant ſur le rouge obſcur, qui devenoit inſenſiblement noiratre " cruſtacée, & ſurtout vers les bords, d'ailleurs biggarrée ſouvent de diverſe couleurs, " de manière que ſelon ce que prédominoit & le excès ou le défaut de ſenſibilité & " d'elevation on pouvoit donner le nom ou de charbon phlegmoneux, ou de charbon " éryſipelatoux ou de gangreneux." Traité de la Peſte, p. i p. 239.

Doctor Gotwald obſerved four ſorts of carbuncles at Dantzick, according to Goodwin.

I. " The firſt riſes pretty high, is of a dark brown colour, the cuticle appearing as if it were burnt, and it is ſurrounded with a lead coloured circle. In the beginning it is no bigger than a pea; but, if not prevented, it ſoon grows to the ſize of a crown piece; inwardly it is moiſter than the reſt, and may be more eaſily ſeparated; its ſeat is generally in the fleſhy parts, as on the ſhoulders, neck, hip, arms and legs.

II. " The ſecond lye a little deeper, and do not riſe ſo high; the eſchar in the middle of it is entirely dark, and aſh coloured, full of ſmall chops, as if it would burſt by too great dryneſs:—it has a ſtrong lead coloured circle, behind which the ſound fleſh looks red and ſhining. It eats into the fleſh round about it, and takes deep root: it generally fixes in the moſt fleſhy parts, buttocks, calves, &c.

III. " The third is not very large, at firſt, it appears like a blood ſwelling, not ſo dark as the former, with a wrinkled ſkin; as it increaſes, ſmall bliſters ariſe in the middle and form an eſchar, in little cluſters, which as an ingenious phyſician obſerved,

ſame time have no doubt there may be others which I had no opportunity of ſeeing[16].

The *Firſt*[17] appeared in the form of a roundiſh puſtule, reſembling a dried pea, of which one half had been cut off, and the flat part applied to the ſkin, of a duſky colour, and the upper ſurface a little wrinkled and yellowiſh. The ſurrounding ſkin was hard, and more or leſs inflamed, forming a narrow rim round the tumor, which was very painful from the firſt, becoming more and more intenſely ſo with the rapid increaſe of the tumor, that ſoon arrived to the ſize of a nutmeg, or ſometimes to that of a walnut[18]. The ſurface at top became now rougher, and a duſky yellowiſh matter ſeemed to lye under the wrinkled cuticle. But ſome variation was obſerved in this circumſtance, it being ſometimes moiſt, at other times dry and cruſty. The reſt of the tumor, as it advanced, aſſumed a deeper, darkiſh red colour; and the rim round it, ſpreading and more inflamed, aſſumed various hues at different times, but none of them ſo conſtant as to ſpecificate the rim, or circle, from thoſe of other carbuncles; at leaſt ſo far as I was able to obſerve.

ſerved, were ſmall carbuncles. They commonly are ſituated in membranous and tendinous parts about the knees, behind the ears, upon the toes, &c.

IV. "The fourth is the moſt curious, as Purman in his Treatiſe of the Plague has well obſerved. Sitonius calls them pale, livid, ulcerous papulæ: they appear with a high yellowiſh bliſter, which ſeems full of corruption: the circle round it is firſt red, then of an aſh colour: the bliſter ſoon falls, and with the carbuncle appears ſcarce ſo big as a pepper corn, continually eating deeper and wider. They are ſeated upon the cartilaginous or griſtly parts. Gotwald found them near the pit of the ſtomach, upon the cartilago enſiformis, and ſhort ribs. All the four take deep root and burn very violently at firſt, but the two former moſt of all." Hiſtorical Account of the Plague, &c. R. Goodwin, London, 1743, p. 49.

[16] M. Emeric mentions a ſtreak, or kind of tail, attending carbuncles on the fingers, of which I have ſeen two or three inſtances. Traité de la Peſte, p. 216.

[17] Caſe XV. XC.

[18] I ſaw none myſelf larger than a walnut, but was informed, that they arrived to a ſize conſiderably larger.

BOOK II.

On the third, fourth, or fifth day a gangrenous cruſt began to form in the middle, which, ſoon ſpreading, occupied the whole face of the tumor, exactly reſembling the black eſchar formed by a cauſtic. This, in ſuch patients as recovered, gradually ſhowed ſigns of ſuppuration round the edges, and ſeparating of itſelf, left an ulcer of various depth, which continued to diſcharge, more or leſs, copiouſly for ſome time: but where the caſe terminated fatally, the cruſt or eſchar, for the moſt part remained dry, with little appearance of caſting off. In ſome caſes the mortification, not circumſcribed in the prominent tumor, ſpread to the inflamed circle, and formed a progreſſive gangrene of conſiderable extent[19].

The *Second*[20] appeared in the form of a ſmall angry puſtule, flatter in figure and more intenſely inflamed than the former; but it did not riſe ſo high, was more diſpoſed to ſpread, and uſually grew black the ſecond day. When once the black cruſt

[19] In June 1762, a young man and his mother were taken ill together on the ſame day. The mother died the day following without any appearance of eruptions. The ſon died the fourth day of his illneſs, having from the firſt ſuffered inceſſant vomiting. The ſole eruption was a carbuncle on the hip, which ſoon became black, and the gangrene occupied a ſpace between two and three inches in diameter.

The peſtilential carbuncle never arrived to the ſize of other malignant carbuncles which I had met with in that country, in ſeaſons not peſtilential: it varied from them alſo in ſeveral other reſpects. Thoſe were more protuberant, more conical, and gradually ſpread at bottom as they roſe in height. The apex was more pointed, intenſely inflamed, and, burſting, yielded a ſmall quantity of concocted pus; but inſtead of the ſuppuration advancing kindly, the increaſing tumor ſpread and grew harder below, while the partial ſuppuration above remained inconſiderable, and was of no ſervice. From the beginning, they were attended with excruciating pain, and after haraſſing the patient for thirty or forty days, a bad fever ſupervening towards the end, they uſually terminated in gangrene: where a fever ſupervened earlier, their courſe was finiſhed ſooner. The ſhoulder and the back were the parts chiefly affected, and the tumors ſometimes were as large as a middling orange.

[20] Appendix, Caſe XIII. XX. CVII.

was

was formed, it could not eaſily be diſtinguiſhed from the former; but was always leſs prominent, and the inflamed margin was, for the moſt part, of a brighter, gliſtning red. This carbuncle ſeemed to me to be leſs common, and peculiarly to affect the fingers and extreme joints; it ſometimes made ſtrange havock in tendinous parts[21].

The *Third* variety of carbuncle[22] appeared to me to begin in a very different manner from the two former. The cuticle was raiſed at once into a bliſter of the ſize of a horſe bean, half filled with a duſky yellow, or blackiſh fluid; round which the ſkin was leſs tenſe, and of a paler red than in the others. When the bliſter broke, the cuticle collapſing, remained ſhrivelled on the flat ſurface, which was duſky at firſt, but ſoon became black, and, only that it was leſs elevated than the ſecond variety, might on the third and fourth days have eaſily paſſed for the ſame eruption. In the advanced ſtate the circle encompaſſing the eſchar became of a deeper red, or livid: but I never obſerved the gangrene ſpread beyond the firſt eſchar, which was about the ſize of a ſixpence, and always round.

This eruption, like the others, was extremely painful, and four, five, or ſix were ſometimes found in the ſame ſubject[23].

The

[21] Caſe CVII.

[22] Caſe XV. LXXXIV.

[23] This I conceive to be the fourth ſpecies of Gotwald, and what Hodges terms blains, deſcribing them as "Veſications of ſize from a pea to a nutmeg, encompaſſed with a variegated circle, generally reddiſh. They aroſe with exquiſite and "ſhooting pain, and contained an ichor of a yellowiſh or ſtraw colour, which was "ſo acrid or cauſtic, that it ſoon corroded the veſicle and burſt out, of a colour "yellowiſh, livid, or black.

"Theſe puſtules broke out in many parts of the body; their ſtation and number "being uncertain; ſometimes few, ſometimes many: in one caſe the whole body "was covered all over with them.

They

BOOK II.

The *Fourth*[24] appeared at firſt like a ſmall red ſpot, perceptibly raiſed, only to the finger. This riſing ſomewhat and ſpreading, aſſumed, in twenty-four hours or ſooner, the form of a flattiſh duſky puſtule, ſurrounded by a light roſe coloured margin. The eruptions ſoon became very painful, and in certain parts, as on the face, near the eyes, &c. occaſioned tumefaction, without inflammation of the ſkin, much beyond the margin or inflamed circle. Its progreſs alſo was rapid; for it often became black the ſecond day, and, without growing more prominent, the mortification ſpread circularly. Theſe tumors were never obſerved

" They ſometimes broke out without any other previous indications of infection. " But whenſoever the pain and heat of the part was ſo aggravated that no applica- " tions could aſſwage it, there was commonly danger of mortification—and, once I " remember a veſicle to change into a carbuncle. Hodges Loimolog. p. 110.

From the laſt circumſtance it would ſeem that Hodges conceived them to be diſtinct from carbuncles; but the inſtance he produces ſhows they ſometimes changed into that eruption; and it is very probable he met with them in other inſtances in the veſicular ſtate (which they preſerved ſometimes for twenty or thirty hours) without having opportunity, in the multiplicity of buſineſs, of attending to their change; and ſeeing them at other times, when the eſchar was formed, might eaſily confound them with other carbuncles.

The Directions of the College of Phyſicians, publiſhed in 1665, deſcribe the blain as ſomething like the carbuncle, but leſs fiery and corroſive.

In article V. reſpecting ſearchers, " Whether there be any blains which may riſe " in any part of the body in form of a bliſter, much bigger than the ſmall-pox, of a " ſtraw colour, or livid colour, which latter is the worſer; either of them hath a " reddiſh circuit, ſomething ſwollen, round about it, which circuit remains after " the bliſter is broken, encompaſſing the ſore." Certain Neceſſary Directions, by the King's ſpecial Command, London, 1665.

This, though diſtinguiſhed from the carbuncle, I imagine to be the ſame with what I have termed the third variety of that eruption. Moſt of thoſe I ſaw formed a black eſchar, but ſometimes the patient died while they were yet in a veſicular ſtate, or juſt broken.

[24] Caſe XV. XVI.

but

but in concurrence with other eruptions: they never were ſingle, and in ſome caſes were pretty numerous. CHAP. IV.

The *Fifth*[25] was at firſt a pimple reſembling a ſmall-pock on the ſecond day of eruption, and encircled by a margin, more or leſs red, advancing with various rapidity; it roſe in a conical ſhape to twice the ſize of a large diſtinct ſmall-pock, with a blunt yellowiſh point; but in place of ſuppurating the point became black, and preſented a round black eſchar, the ſize of a large field pea, more prominent than the fourth variety, but which after its firſt formation was not obſerved to ſpread further. The margin became of a duſky red, in the advanced ſtate, but brightened as ſuppuration took place; and the eſchar ſeparated ſpontaneouſly[26].

As I had no opportunity of ſeeing this puſtule earlier than the ſecond day, I cannot tell how far it might at firſt reſemble the fourth variety, but from the time I ſaw it, its ſhape was more conical, and it was more prominent. After the complete formation of the eſchars, the third, fourth, and fifth varieties bore a reſemblance to each other, varying, on a curſory view, only in ſize, and being more or leſs raiſed above the ſkin: but their progreſs, when watched from the firſt hours of eruption, was certainly different[27].

The

[25] Appendix, Caſe V. XV.
[26] Caſe XX. LXXXIV. CVII.

[27] This is clearly the eruption mentioned by Timoni, and the puſtules charbonneuſes of the French phyſicians at Marſeilles.

"Puſtula rubicunda, ad ſemi Ciceris magnitudinem, in extremo purulenta maligna eſt: in lividum enim carbunculum brevi excreſſit." Timoni, Phil. Tranſ.

"Les puſtules (charbonneuſe) s'élevent comme de petits furoncles, ou boutons, "en forme de pain de ſucre avec une rugeur à la baze & un point blanc à la cime. "Dans quelques heures ce point blanc ſe déſſeche & devient noir, la tumeur "s'étend, la rougeur diminuë & ſe forme une dureté tout autour de la tumeur. Ces

BOOK II.

The carbuncles in their eruption preſerved no regular period. They ſometimes appeared the firſt day[28], but commonly in the more

" puſtules ſont fort douloureuſes & font une eſcarre comme les charbons, elles pa-
" roiſſoient ou au commencement ou dans la ſuite du mal, & dans le troſiéme &
" dernier période elles ſortoient avant que la fievre ſe déclarât & que la malade ſentît
" aucun mal. On en à vü quelquefois ſortir ſur les bubons & ſur les parotides,
" mais celles là n'ont jamais été d'un bon augurè. M. Bertrand." Traité de la Peſte, p. i. p. 375.

The eruption mentioned by Ruſſell muſt have reſembled this in its firſt ſtage, but differed materially in its laſt. " A few of the ſick had puſtules, which were filled
" with well concocted matter, without any livid or diſcoloured circle about them:
" theſe, after a certa t ime, dried up and fell off, as commonly happens in the
" diſtinct ſmall-pox; and as all the patients who had this eruption recovered, it was
" conſidered as a favourable ſymptom." Nat. Hiſt.

This puſtule was not met with in 1762, for all I ſaw turned black.

The papulæ ardentes, mentioned by Gotwald, bear reſemblance in ſome reſpect to a certain ſtate of ſome of the carbuncular puſtules. " He obſerved the papulæ ar-
" dentes, or fire bladders, in two patients only, both which recovered. They were
" as broad as a ſhilling, of an irregular ſhape, and the ſkin ſeemed as it were ſhri-
" velled by fire; at length they emitted a ſmall quantity of moiſture, and vaniſhed
" in a few days. They appeared on the belly, thighs, and legs, attended with a
" ſlight ſhivering," &c. Goodwin's Hiſtorical Account, p. 51.

The eruption mentioned by Hodges under the name of tokens, are deſcribed in ſuch a manner as to leave it doubtful whether they belong to the claſs of carbuncles or of maculæ; though the author himſelf would ſeem to have conſidered them rather as diſtinct from the carbuncle. As they appeared to have been of material conſequence in the prognoſtic, and were conſidered vulgarly as pledges or forewarnings of death, it may be worth while to attempt to diſtinguiſh them with more preciſion, as far as can be done by comparing the author's own account, as it is found in different parts of his works.

In the Loimologia, p. 133, he ſays, " They are nothing elſe than minute and
" diſtinct blaſts, which have their origin from within, and riſe up with a little py-
" ramidical protuberance, having the peſtilential poiſon chiefly collected at their
" baſis, and according to the accuſtomed diſperſion of ſuch agents, gradually tainting
" the neighbouring parts."

In the Letter to a Perſon of Quality, p. 26, he ſays, " Theſe tokens are ſpots
" upon the ſkin of a diverſe figure and colour, proceeding from chi efly extravae
" blood,

[28] Caſe XV. LII. LXXVII.

more advanced ſtages; and where ſeveral were found in the ſame ſubject, they were protruded in quick ſucceſſion[29]. I ſaw none appear

CHAP. IV.

" blood, which by reaſon of its ſtagnation putrifies, and produces ſuch mortifi-
" cations diſcolouring the ſkin, ſo then theſe ſpots which are the true tokens, are
" profound mortifications cauſed by the extinction of natural heat upon the account
" of highly prevailing malignity, becauſe many ſpots ariſing upon the ſkin were
" only cutaneous, and ſo far impoſed on many ſearchers and unſkilful viewers of
" them, that they declared them to be true tokens: experiment was always made
" upon theſe diſcolorations by a lancet or large needle, to try whether that part ſo
" affected was ſenſible; if not, then it was moſt apparent that ſuch perſons had
" thoſe fatal marks upon their bodies, which were certain forerunners of death; but
" if the patient did diſcover ſenſe upon the pricking or inciſion, then ſuch ſpots
" being only cutaneous were not eſteemed deadly."

If this paſſage be compared with what Diemerbroeck ſays, on the ſubject of exanthemata (ſee ſubſequent note) it would at firſt ſeem that the tokens at London were the ſame with the maculæ mortis at Nimiguen, which the author ſays aroſe from the internal parts, and terminated in the ſkin, being occaſioned by the extinction and extravaſation of the animal ſpirits: and he conceives the generality of writers to have been miſtaken in thinking theſe ſpots merely ſuperficial on the ſkin, and proceeding from putrifaction, ebulition, &c. in the blood and humours.

Diemerbroeck, p. 65. lib. iv. Hiſt. 32.

But Hodges deſcribes the token as riſing above the ſkin; a property that certainly did not belong to the maculæ of Diemerbroeck, and which, with other circumſtances, ſeems to bring them, at leaſt ſometimes, nearer to ſome variety of the carbuncle.

" The tokens (ſays Hodges's Loimolog. p. 133—139) were of various ſizes,
" ſometimes as ſmall as a pin's head, ſometimes larger, and as broad as a ſilver
" penny. Some were depreſſed, others prominent; they differed alſo in their
" degrees of hardneſs, ſome being eaſily penetrated with a needle or penknife, while
" others more callous or horny were penetrated with more difficulty. They were
" not all of the ſame colour, but often bore ſo ſtrong a reſemblance to warts that
" they were often miſtaken for them, not only by the vulgar, but even by the ſur-
" geons; and the author himſelf was ſometimes obliged to have recourſe to a
" needle for diſtinguiſhing them. A quick ſenſibility was a good ſign, and thoſe
" which went no farther than the ſkin would oftentimes ſlough off; whereas when
" they went deeper, they were deemed dangerous, eſpecially when the part loſt its
" feeling and threatened ſphacelation."

In the letter above cited he obſerves, " The tokens were not of one ſize or big-
" neſs, ſome being broader than a ſilver penny, others at firſt very ſmall, by de-

[29] Caſe LI.

BOOK II.

appear later than the eighteenth day. Of thoſe of the firſt and ſecond ſpecies, ſeldom more than one or two were obſerved in the ſame ſubject, in general one only; the other varieties concurred in greater number; and, including thoſe of the fifth, I have

" grees enlarging and ſpreading themſelves; to the touch they ſeem hard, not unlike " little kernels under the ſkin, the ſuperfices being ſmooth; yet I ſaw one where " theſe tokens put out with little bliſters upon them.—In ſome the colour was " reddiſh, with a circle inclining to blue, in others they repreſented a faint blue, " the circle being blackiſh, many were of a browniſh duſky colour, like ruſt of iron " or moles in ſome bodies.—When I aſſayed to prove (ſome of) them, I found " them almoſt impenetrable," p. 27, 28.

Upon comparing the above paſſages, it would ſeem that two diſtinct eruptions are blended by the author in one deſcription. Where the eruption was like little kernels under the ſkin, or protuberant, or reſembling warts, there could have been no difficulty in at once diſtinguiſhing it from petechiæ, which never are prominent; and where they were ſurrounded by a blue or blackiſh circle, or put out bliſters, and from being very ſmall ſpread and enlarged themſelves, ſo many properties belonging to carbuncles would tempt one to conceive them of that ſpecies; only that their inſenſibility or abſence of pain, are circumſtances againſt ſuch conjectures: all the known varieties of that tumor being attended with pain.

But where Hodges remarks (Letter, p. 37.) " That very many were puzzled to " diſtinguiſh aright between *theſe marks* and the petechiæ peſtilentiales, or peſtilen- " tial appearances in ſpotted fevers, as alſo ſcorbutical ſpots frequently inter- " ſperſed among them; and that he had taken notice of many miſtakes upon both " theſe accounts; or where he himſelf had recourſe to the needle or lancet, to " diſcriminate cutaneous ſuperficial ſpots from thoſe more deeply rooted, which " were true tokens; a ſpecies of maculæ, or petechiæ, like that of Diemerbroeck, " are certainly meant, and not a prominent eruption like the one deſcribed imme- " diately before."

What he adds further from anatomical obſervations agrees nearly with Diemerbroeck's notion of the maculæ: " That the tokens have their original and riſe from " within, and afterwards externally ſhow themſelves, which is evident, becauſe the " baſis of them is larger than their outward appearance, and the internal parts are " found very often ſpotted, when there is no diſcoloration viſible on the ſkin. " Letter, p. 27."

I ſhall only remark farther, that in the Loimologia, petechiæ are deſcribed diſtinct from tokens, p. 131, but in the Letter, ſo often cited, they are only mentioned occaſionally, under the title of Tokens.

ſome-

ſometimes counted between twenty and thirty, but this happened very rarely. Where the ſick were in a ſtate of inſenſibility, the ſmaller carbuncles often remained undiſcovered for ſeveral days, eſpecially when ſeated in parts leſs expoſed to view; but all of them were attended with much pain, and in certain ſituations, and habits of body, the pain was excruciating[30].

No external part whatever was exempt from the carbuncles. I have met with them every where, the penis and ſcrotum not excepted; but never obſerved them on the tongue[31], the tonſils, or internal parts of the mouth; though in carbuncles on the cheek, near the corner of the mouth, the gangrene ſpread inwards; and in one inſtance of a carbuncle on the eye-brow, the gangrene ſpreading upon the globe of the eye, had deſtroyed part of it[32].

The complication of eruptions, of all others the moſt common, was that of carbuncles and buboes, and in general they appeared on the ſame ſide, that is, in axillary or inguinal buboes, the carbuncles uſually were protruded on the arm, leg, or thigh of the ſame ſide with the buboes. There were, however, frequent exceptions to this, the carbuncles and buboes appearing in oppoſite ſides. A carbuncle ſometimes aroſe near the edge of a bubo, but I never ſaw one protrude from the body of the tumor.

A carbuncle on the arm or hand was ſometimes followed by a ſympathetic ſwelling of one or two of the axillary glands[33]; but

[30] Caſe CVII.

[31] Timoni makes mention of carbuncles on the tongue. Philoſ. Tranſ. M. Verny met with them in the throat. Traité de la Peſte, p. 289.

[32] The ſubject was a young woman who recovered. I ſaw her not before the fifteenth day. She had a bubo on the right thigh, which at firſt inflamed, but afterwards diſcuſſed. The parotids on each ſide were ſwelled, and one opened; ſhe eſcaped with the loſs of one eye.

[33] Caſe CVII.

BOOK II. it was rare to ſee the like ſwelling in the inguinal glands, from carbuncles on the thigh, leg or foot. The ſympathetic ſwellings were leſs intenſely painful than primary buboes, and diſperſed upon the carbuncles coming kindly to ſuppuration: whereas primary buboes were little affected in their progreſs to maturation by the diſcharge from the carbuncles.

Common boils or furuncles were obſerved in very few caſes joined with peſtilential tumors, from which they were eaſily diſtinguiſhed by their ſudden inflammation, their riſing to a point, and their diſcharge of good matter, or a white core. They were in ſize much larger than the puſtules reſembling a ripe ſmall pock, mentioned in a former note.

The chirurgical treatment of the peſtilential tumors was extremely ſimple, and ſhall be deſcribed in the following chapter, where it is my intention to introduce, by way of note, a few remarks on the harſh, operoſe mode of treating the buboes, which was at firſt adopted, and afterwards rejected by the Montpelier phyſicians in 1720.

Petechiæ[34] were by no means a common eruption in the plague. They,

[34] "Exanthemata peſtilentialia (quæ vulgus mortis vel peſtis Maculas, Itali PETE-
"CHIAS, PETICULAS et LENTICULAS, Galli PURPURAS et PAPILI-
"ONES, Belgæ GRANUM PIPERIS appellunt) ſunt maculæ purpureæ vel rubræ,
"vel nigræ aliuſve coloris, ut plurimum rotundæ, aliquando oblongæ, latæ aliuſve
"formœ in ſumma cute efflorescentes. Nonnulli diſtinguunt inter exanthemata et
"maculas, quod illa habeant eminentiam et ſint de genere tumorum, hæ non. Verum
"nos omiſſa hac curioſa magis quam neceſſaria diſtinctione ad exemplum Fernelii
"utroque vocabulo indifferentur pro eadem re utimur, Diemerb. p. 72."

The author is diffuſe on this ſubject, and thinks it a miſtaken though prevalent notion, that the maculæ are merely ſuperficial in the ſkin, proceeding from putrifaction, ebulition, &c. in the blood or humours: on the contrary, he affirms, they ariſe from the internal parts, even the perioſteum, broad at the baſe, and tapering to their termination in the ſkin, being produced by the extinction and extravaſation of the vital ſpirits. P. 65, vide lib iv. Hiſt. 32.

They, for the moſt part, predicted a fatal termination,[35] but not without exception.[36] CHAP. IV.

Thoſe

Now this anſwers exactly to one ſpecies of the tokens deſcribed by Hodges, which therefore may be reckoned the ſame with the maculæ mortis of Diemerbroeck, and was probably the only one obſerved at Nimiguen; for though that author uſes indiſcriminately the terms exanthema and macula, yet is evident he never meant by the macula mortis an eruption that riſes above the ſkin, becauſe he expreſſly affirms the peſtilential exanthemata are never raiſed. "Vera exanthemata peſtilentialia fiant ſine tu- "more" (p. 72.)

The prominent eruption deſcribed by Hodges (Note, p. 214) was therefore different from this; more probably not obſerved at Nimiguen, than omitted in the account of that plague.

In looking into ſome of the writers contemporary with Hodges, who practiſed at London, their deſcription of the tokens leave it without doubt, that, ſome of them, at leaſt, belonged to the claſs of Petechiæ. In the Medela Peſtis, by Richard Kephale, publiſhed in 1665, and dedicated to the Lord Mayor, I find the following paſſage, p. 84, "Tokens, otherwiſe called God's Tokens, are commonly of the bigneſs "of a flea bitten ſpot, ſometime much bigger; their colour is according to the pre- "dominacy of the humour in the body; red or reddiſh if choler; pale blue, or dark "blue, if phlegm; leaden, or blackiſh, if melancholy abound; but they have ever a "circle about them: the red ones a purpliſh circle, and the others a reddiſh circle: "they appear moſt commonly on the breaſt and back; and ſometimes on the neck, "arms and thighs—in ſome bodies there will be very many; in ſome but one or two, "or very few. They uſually ſhew themſelves on the third, fourth, fifth, or ſeventh "day, ſometimes not till death, the venom tyrannizing over the dead carcaſe. If "they be ſkilfully diſſected in the dead body, you may find ſome half way deep in the "fleſh, and ſome in the muſcles of the breaſt have been followed with the inciſion "knife even to the rib bones." Medela Peſtis, Lond. 1665.

In the Loimotomia by G. Thompſon, M. D. a book written in a high chemical, enthuſiaſtic ſtile, is the following paſſage. "The ſilly old women, called ſearchers, "can report, upon the bare aſpect of a peſtilential corps, when they ſee tumours of "the emunctorees, cauterizing carbuncles, blains, puſtules, and thoſe ſtigmata nigra "they call the tokens, in the ſuperficies of the ſkin, that this or that perſon died of "the ſickneſs." Loimotomia, G. Thompſon, M. D. Lond. 1666, p. 47.

In the directions publiſhed by the College of Phyſicians, in the year 1665, there is an additional article, not to be found in thoſe of 1636 or 1603 (both which refer to preceding orders in the reign of Elizabeth) and which article I imagine was then firſt compoſed, containing directions for the ſearchers. The tokens are clearly deſcribed as maculæ or petechiæ.

Article

[35] Caſe VII. XX. LXXII. CIV.

[36] Caſe CVII.

BOOK II.

Thoſe I had moſt frequent occaſion to obſerve were round, and in ſize ſomewhat ſmaller than a recent flea bite. The colour at firſt duſky, ſometimes a pale, purpliſh red: but in either caſe it changed to livid before death. They were diſtinct, few in number, and ſcattered at a diſtance irregularly from each other; and moſtly remarked on the breaſt and maſtoid muſcles. The time of eruption was various, but generally late in the diſeaſe.[37] Where they did not make their appearance till near the fatal period, the change of colour was leſs remarkable, they being, in that caſe, from the firſt livid or very duſky.

I have

Article V. "Whether there be any tokens, which are ſpots ariſing upon the ſkin, "chiefly about the breaſt and back, but ſometimes, alſo, in other parts. Their co- "lour is ſomething various, ſometimes more reddiſh, ſometimes inclining a little "towards a faint blue, and ſometimes browniſh, mixt with blue; the red ones have "often a reddiſh circle about them, the browniſh a reddiſh."

Theſe orders are dated 26th May, 1665, and conſequently anterior to Hodge's Loimologia, &c.

[37] On the ſubject of petechiæ, Hodges ſays, "The peſtilential petechiæ were diſ- "tinguiſhed from the ſpots of malignant fever by their being deeper coloured;— "they do not fix in the ſame parts, and ſometimes they diſappear, after a ſhort ſtay "in one place, and immediately riſe in others.—They were ſometimes few, but moſt "commonly very numerous.—The colour was not always the ſame, ſometimes they "were red or purple, at others yellow, and ſometimes livid or black." Loimologia, p. 131, 133.

Gotwald deſcends to a more particular deſcription. "The petechiæ or malignant "ſpots are dangerous. There are four kinds.

"The firſt look like flea bites, and are reddiſh at the firſt appearance, but ſoon grow brown, but laſt of all black; they are round, and ſhew themſelves on all parts of the body, except the face, where they are not always found.

"The ſecond ſpecies are in the form of lentils, and are ruddy at firſt, but in twenty-four hours grow dark and aſh coloured, they ſpread as the former, all over the body.

"The third ſort appears in large brown ſpots, of the ſame colour as the former, but they are only ſcattered here and there, ſometimes they are intermixed with the lentil kind.

"The

CHAP. IV.

I have obſerved ſmaller petechiæ of a dark red, or duſky colour, ſometimes round, but often of irregular figure. Theſe were more numerous, cloſer together, ſometimes confluent; and were remarked, in a few inſtances, in the interſtices of the former: but ſuch a concurrence, as well as the variety itſelf, was uncommon.

A certain marbled appearance of the ſkin was ſometimes viſible in different parts, in the height of the diſeaſe, or ſome hours before death. The variegating colours were a pale, faint blue, and darkiſh red, which at different times were more or leſs obſcure, but never bright. It was not permanent till towards the end, but vaniſhed without leaving any traces behind, and returned repeatedly at ſhort intervals. In the few inſtances I met with, no diſtinct or confluent ſpots like petechiæ were diſcernible, though perhaps ſomething of that kind might become viſible after death.

An eryſipelatous redneſs of the ſkin, which only remained viſible for a ſhort while and did not return, was obſerved in a few caſes,[38] but occurred ſo rarely, that it hardly deſerves to be ranked among peſtilential exanthemata.

The ſkin, in various places, was ſometimes deformed by narrow ſtreaks of a reddiſh purple, or livid colour.[39] When ſuch took poſſeſſion of the face, they gave a frightful appearance to the countenance, and frequently produced ſuch an alteration of features, ſo completely diſguiſed the patient, as to render him hardly knowable by his acquaintance.[40] A ſtreak nearly of the ſame kind was

" The fourth ſpecies is not unlike the meaſles, and ſpreads all over the body; in two or three days they ſeem to riſe to a head, in little bliſters, but contains no matter; on the fifth day they dry away, and then the patient's death is not far off." Goodwin's Hiſtorical Account, p. 50.

[38] Caſe XVII.

[39] Caſe IV. XVI. LV.

[40] " Nam et in ore eorum cernes aliquid peſtilentis coloris cum partim eryſipelato-
" ſum, partim colorem habent deſpacentibus ſerpentibus ſimilem per pluras partes di-
" fuſam." Foreſtus, lib. vi. Obſ. xi. Schol.

Gotwale

was ſometimes remarked darting from the edges of the buboes and carbuncles.[41]

The vibices or weals were much longer and broader, and more exactly reſembled the marks left in the fleſhy parts by blows or ſtripes, they were found chiefly on the thighs, buttock, and back, and made their appearance ſeveral hours before death, in ſome caſes;[42] but in others not till after.

Large blue or purple ſpots, the maculæ magnæ of authors were ſometimes obſerved with or without the vibices, a little while before the patient expired,[43] but moſt commonly were diſcovered only on the corpſe.[44] Their figure in general was round, ſometimes irregular.[45]

Beſides

Gotwald deſcribes the vibices as deforming the face: "they cover the face as high "as the noſe, and from thence ſpread to the forehead, disfiguring the patient in a "frightful manner."

[41] M. Emeric gives two inſtances of this kind. "Les charbons qui viennent ſur "les articulations, ſont preſque tous mortels, & ceux qui ont une queuë couleur "de ceriſe qui ſont ſituée aux mêmes endroits ſont abſolument mortels. J'en ai vû "quelques uns, mais entre autres un ſur l'articulation de la dernier phalange du "pouce de la main droite, avec ſa queuë couleur de ceriſe, qui partoit du charbon en "ligne droite comme un petit ruban d'environ deux lignes de largeur tout le long de "l'intérieur de bras, & ſe perdoit ſous l'aiſſelle; un autre ſur la partie interne de ge-"noüil gauche, dont la queuë ſe perdoit vers le milieu de la partie interne de la cuiſſe." Traité de la Peſte, p. i. p. 216. See alſo Appendix, Caſe XXI.

[42] Caſe XVII.

[43] Caſe XXIII.

[44] Caſe III. XVIII.

[45] "Sunt autrem maculæ modo coloris rubei modo lividi, aut nigri. Nonnullis "autem ob virtutem debilem neque maculæ, aut bubones vel anthraces apparent, ſed "multi poſt mortem, magna quidem macula nigra circa dorſum ſpectatur (ut recte "ait Montanus quemadmodum nos aliquando obſervavimus) ut ſi quis fuſtibus cæſus "eſſet aut ab alto ccciditſet." Foreſtus, lib. vi. Obſ. 12. Schol.

Vidimus

CHAP. IV.

Beſides the ſtigmata now deſcribed, the whole ſkin of the thighs, back and ſhoulders, often turned livid, while the corpſe was yet warm.[46] But this change, as well as the peſtilential tumors and other external marks, ſeldom were attendants on the plague at its firſt riſe, when moſt wanted for aſcertaining the nature of the diſeaſe:[47] when once that was declared, the ſtate of the corpſe, as a matter of leſs conſequence, was little attended to.

I have mentioned before, in the Hiſtorical Journal, that the number of infected who applied to me for aſſiſtance, during the time I was ſhut up in 1762, from the middle of May to the 8th or 9th of Auguſt, amounted, according to my ſick liſt, to near three thouſand; a conſiderable proportion of which conſiſted of convaleſcents, who required little more than topical remedies for their eruptions. Beſides enquiring whether the patient had at any former time ſuffered the plague, I conceived it might be of ſome utility, with a view ſubſervient to the hiſtory of the diſeaſe, to mark down the patient's age and ſex, as alſo the ſituation and ſtate of the eruptions, with the *dies morbi*, at the time of his application; for it was in vain to attempt keeping regular journals of all the caſes I had occaſion to ſee: nor were ſuch journals of much conſequence, in reſpect to convaleſcents already out of all danger. From this diurnal liſt of infected, written at the time, I have collected two thouſand ſeven hundred caſes, attended with eruptions of one kind or other, and upon theſe, after due arrange-

" Vidimus etiam maculas lividas & nigras oblongas, quaſi calamo ſcriptorio in-
" ſcriptas, alias quoque majores quaſi flagellis inductas nonullas etiam maximas." Diemerbroeck, de Peſte, cap. vii. p. 14.

" Vibices or plague ſtripes are not obſerved till the patient be near his end, for
" they are forerunners of death; they often appear unexpectedly, and ſhoot up like
" lightening from the breaſt to the face, in ſpots of various colours, blue, green,
" brown and yellow." Gotwald. Goodwin, p. 47.

[46] Caſe I. LV.

[47] See Foreſtus, lib. vi, ut ſupra.

BOOK II.

ment, have conſtructed the following tables, which upon a compariſon with my obſervations in former years, as well as in 1762, before ſhutting up, and after coming out of confinement, will, I believe, be found to exhibit, with tolerable exactneſs, the comparative ſtate of the ſeveral eruptions in different ſexes and ages: except in regard to carbuncles, and theſe, for reaſons to be aſſigned hereafter, I am inclined to think are in reality met with in a proportion ſomewhat greater than what is given in the ſubſequent tables.

TABLE I.

Showing in two thouſand ſeven hundred peſtilential caſes, the proportional frequency of the ſeveral eruptions.

	Inguinal Buboes.	Axillary Buboes.	Parotids.	Carbuncles.	Spurious Buboes.
Men	835	206	58	194	23
Women	641	180	57	150	24
Children	365	183	116	146	27
Total	1841	569	231	490	74

It would appear from the above table, that the inguinal buboes are of all other eruptions, belonging to the plague, the moſt common; exceeding the axillary buboes by more than two-thirds, and the carbuncles in proportion ſtill greater.

The parotids bear but a ſmall proportion to the inguinal buboes, and are chiefly incident to children, and to the youth of either ſex. Spurious buboes may be, comparitively, reckoned a very rare eruption.

TABLE II.

Showing in what proportion inguinal buboes were found to affect the right, left, or both groins; either where they were the

the only eruption, or when they happened to be conjoined with carbuncles or other tumors. CHAP. IV.

	Inguinal Buboes, ſimple.			Inguinal Buboes, complex.		
	Right Groin.	Left Groin.	Both Groins.	Right Groin.	Left Groin.	Both Groins.
Men -	355	251	85	73	47	24
Women	242	220	61	49	49	20
Children	132	118	29	39	34	13
Total	729	589	175	161	130	57

TABLE III.

Showing in like manner in what proportion axillary buboes affect either or both axillæ.

	Axillary Buboes, ſimple.			Axillary Buboes, complex.		
	Right Axilla.	Left Axilla.	Both Axillæ.	Right Axilla.	Left Axilla.	Both Axillæ.
Men -	74	60	3	39	25	5
Women	51	58	2	31	30	8
Children	59	47	4	24	40	9
Total	184	165	9	94	95	22

From the ſecond and third table it would appear, that inguinal buboes are found more frequently in the right than in the left thigh; and that in 1841 caſes, there were only 232 wherein buboes in both thighs occurred in the ſame ſubject.

Axillary buboes are alſo rather more frequent in the right axilla than the left, but the difference is inconſiderable. Axillary buboes in both ſides are rare; for in 358 caſes, there occurred only nine inſtances. It deſerves at the ſame time to be remarked, that buboes in each axilla were more frequent in caſes complicated with other eruptions; for in 211 caſes of this kind, 22 inſtances of axillary buboes in both ſides were met with in the ſame ſubject.

TABLE IV.

Showing the proportion of caſes, attended with parotids, carbuncles, and ſpurious buboes; firſt where they were the ſole eruption, reſpectively; and ſecondly, where they were conjoined with inguinal or axillary buboes.

	Parotids.		Carbuncles.		Spurious Buboes.	
	Simple.	Complex.	Simple.	Complex.	Simple.	Complex.
Men -	27	31	29	165	11	12
Women	36	21	27	123	11	13
Children	67	49	29	117	15	12
	130	101	85	405	37	37

It has been already remarked, that the parotids bore a ſmall proportion to the inguinal buboes. In 2700 caſes, there were no more than 130 wherein parotids were unaccompanied with other eruptions, and in 67 of thoſe the ſubjects were children under ten years of age. In 600 complicate caſes, the like number of inſtances were met with, which, being a ſixth part, ſhows ſufficiently that they are for the moſt part conjoined with other eruptions.

Carbuncles, ſimply by themſelves, appear to be ſtill more rare than parotids; but in combination with buboes are much more common; 85 caſes out of 2700 were accompanied ſimply with carbuncles, and even from that number 10 or 12 may be ſubtracted, being caſes where I ſaw the patient ſo early, that it was probable other eruptions might appear afterwards in the courſe of the diſeaſe: the reſt were convaleſcents, and the period of the diſeaſe too late for the protruſion of other eruptions. In 600 complicated caſes, attended with different eruptions under various combinations, two-thirds of the infected had carbuncles.

CHAP. IV.

It was remarked by my brother in the plague of 1742, that carbuncles appeared in about one-half of the infected[48]. In 1762, according to the foregoing table, leſs than a fifth part of the ſick had theſe eruptions. The plague in this reſpect may poſſibly vary in different years; but I conceive my brother's computation to have been only conjectural. I own, however, it appeared to me at the time, from general obſervation, that carbuncles were proportionally more frequent than the table repreſents them. This may in ſome meaſure be accounted for, by recollecting that a very large proportion of the caſes diſtributed in theſe tables, conſiſted of convaleſcents who applied merely for external remedies, and that multitudes with carbuncles may have periſhed in the early ſtages of the diſeaſe, which I had not an opportunity, in confinement, of ſeeing, in the ſame manner as when I went abroad myſelf among the infected: I am therefore inclined to think that one-fourth rather than one-fifth part of the infected had carbuncles.

The ſpurious buboes would ſeem, from the table, to be protruded as frequently by themſelves as in conjunction with other eruptions; but the ſame remark is applicable to them which has juſt been made relative to carbuncles, namely, that ſome deduction ſhould be made for caſes where I perhaps once only ſaw the patient, very early in the diſeaſe, and where other eruptions may have probably been conjoined afterwards. The number of ſuch caſes were about fourteen, which would reduce the number of ſimple caſes from thirty-ſeven to twenty-three.

TABLE V.

Containing caſes in which there was a complication of various eruptions in the ſame ſubject.

Men - - - - - - -	232
Women - - - - - - -	189
Children - - - - - -	181
Total - - - -	602

[48] Nat. Hiſt. of Aleppo.

BOOK II.

Inguinal and Axillary Buboes variouſly conjoined.

Inguinal and axillary buboes on the right ſide - -	27
Inguinal and axillary buboes on the left ſide - - -	26
Inguinal buboes on the right ſide, axillary on the left ſide	17
Inguinal buboes on the left ſide, axillary on the right - -	9
Inguinal buboes right ſide, axillary on both ſides -	2
Inguinal buboes on both ſides, axillary indifferently on the right and left - - - - - - -	22
Inguinal and axillary buboes, conjoined with parotids or ſpurious buboes - - - - - -	38
Inguinal and axillary buboes on both ſides - - -	2
Total	143

I have already had occaſion to remark, that the complication of eruptions moſt frequently met with in the Plague, was carbuncles with buboes; four hundred out of ſixh undred complicate caſes were attended with carbuncles.

Inguinal and axillary buboes ſtand next in order, and it appears from the above table, they were moſt commonly protruded on the ſame ſide, indifferently whether right or left. Inguinal buboes in both groins were attended with ſingle axillary buboes, two inſtances only in twenty-four occurring to the contrary. A ſingle inguinal or axillary bubo, with one or two carbuncles, was of all others the moſt common conjunction. In more complicate caſes two or three buboes and three or four carbuncles, were met with in the ſame ſubject. Other caſes ſometimes preſented wherein both groins, axillæ and parotids were affected, and to theſe buboes were joined ſeven or eight carbuncles on different parts, but inſtances of this kind were proportionally rare. It is remarkable that a conſiderable ſhare of theſe caſes, diſtinguiſhed by ſo extraordinary a concurrence of eruptions, was met with among children under ten years of age.

CHAP. V.

CHAP. V.

The Method of Cure purſued in the Plague.

IT has been already remarked, that certain popular prejudices prevalent in Turkey, lay reſtraints on the medical practice in the plague, and ſometimes leave little more to the phyſician than to remain a paſſive ſpectator of the natural progreſs of the diſeaſe. In deſcribing therefore the method of cure, I ſhall confine myſelf ſtrictly to what actually was done, which alone is matter of experience: as to what, if at full liberty, I might wiſh to have done, inaſmuch as it was not ſupported by experience, it ſhall be reſerved, together with other matters of opinion, for another place.

A very large proportion of the infected were bled at the arm; I believe nearly two-thirds: ſome were only cupped, but the number of the former was by much the moſt conſiderable. The bleeding was in general performed the firſt night, or ſome time on the ſecond day; ſometimes not till the third. Where the bleeding was repeated, it was uſually on the third day, ſometimes ſo late as the fifth, and even the ſixth. I met with inſtances wherein the patient was three or four times bled, the laſt bleeding being ſo late as the ſeventh day. Such late and repeated bleedings were conſidered, however, as extraordinary; and as they almoſt never took place in the three firſt claſſes, ſeveral of the patients recovered.

What has been ſaid chiefly reſpects the practice of the natives, who let blood in the hot ſtages, at any period where the febrile ſymptoms ran high, eſpecially if that evacuation had been neglected at the beginning. But from the rapid progreſs of the diſeaſe, and the quick tranſition from the febrile to the low languid ſtate, few were bled more than once, and that uſually within the firſt forty hours.

BOOK II.

As the ſudden loſs of ſtrength and ſmall quick pulſe were, in general, objections to bleeding, it of courſe had very rarely place in the ſick of the firſt claſs; but in thoſe of the other claſſes, ſomewhat more than one half were bled; the third claſs excepted, where, as it appears from the journals, of twenty-eight caſes, bleeding had been omitted only in four.

Beſides the low, ſunk ſtate of the ſick, the appearance of eruptions was ſometimes an objection to bleeding; but the influence of this objection was chiefly confined to the Chriſtians and Jews, and among them was far from being general.

In my own practice, I uſually adviſed one bleeding at the beginning, except in the very young, aged, or infirm; or where deterred by the ſtate of the pulſe, and ſudden acceſſion of alarming ſymptoms. The appearance of eruptions was never of itſelf conſidered as an objection to bleeding; becauſe at that early period it was impoſſible to judge whether the buboes would advance or not, and in a great number of inſtances I never obſerved them recede upon bleeding.

As the major part of the ſick did not apply for advice ſooner than the 2d or 3d day, they often had been bled before I ſaw them; in which caſe I was regulated in reſpect to a ſecond bleeding, by the ſtate of the pulſe in the remiſſions, and the preſence or abſence of vomiting or diarrhœa. Where bleeding had been omitted at the beginning, I ſometimes ventured, in youth, or in plethoric habits, to order ſome blood to be taken away; notwithſtanding the depreſſion of the pulſe, and the concomitant vomiting and diarrhœa; but I was not encouraged by the ſucceſs of this practice; for the pulſe ſeldom roſe under ſuch circumſtances, and I ſometimes ſuſpected it had done harm. What might have been the effect of a ſecond bleeding, I cannot ſay, becauſe it never was tried where vomiting or diarrhœa were concomitant ſymptoms. But in no caſe whatever, to the beſt of my recollection, did I order a bleeding later than the third day.

Bleeding

CHAP. V.

Bleeding on the firſt day, where not forbidden by indubious circumſtances, was directed by way of precaution, in the uncertainty of the future courſe of the diſeaſe; on the ſubſequent days it was regulated by the ſtate of the pulſe and other ſymptoms. Its general limitation to the firſt three days, aroſe from obſervation of the uſual courſe of the diſeaſe, which in dangerous caſes, very rarely, after that period, preſented indications for bleeding. In caſes attended with little danger, the tranſient febrile exacerbations later than the third day, might have borne the loſs of blood without much injury, but it was not requiſite.[1]

In many caſes of ſlight infection, (Claſs V.) where the febrile ſymptoms were moderate, or did not ſupervene till ſome days after the eruptions, bleeding was wholly omitted: more from a notion of its being unneceſſary, than an apprehenſion of its doing harm; for in many inſtances where the ſick, in compliance with cuſtom, had been bled, the future courſe of the diſeaſe ſeemed no way affected by the evacuation.

The quantity of blood taken away at once ſeldom exceeded eight or ten ounces. The native practitioners are apt to be too ſparing; but where I had reaſon to believe the patient had loſt ten ounces at firſt, I was cautious in ordering a ſecond bleeding, though the ſymptoms in the exacerbation on the ſecond day might ſeem to require it; becauſe the pulſe often ſunk on the third, or a ſweat broke out: but if the pulſe kept up in the remiſſion, and ſymptoms in the ſubſequent exacerbation rendered it requiſite, a ſecond bleeding was then directed. I ſeldom or never ordered cupping, but it was in practice among the natives: ſometimes from dread of the lancet, and ſometimes from apprehenſion of admitting a common bleeder into the houſe. Children were ſcarified in the legs, as uſually practiſed in the ſmall-pox.

[1] This is not merely conjecture, the natives frequently bleed in ſuch circumſtances, without ill conſequence.

BOOK II.

I had not many opportunities of examining the blood drawn from the vein. In general it varied little from healthy blood; the craſſamentum was ſometimes of a darkiſh colour, but never ſizy or reſolved.

In determining the effects of blood letting in the plague, it becomes indiſpenſably neceſſary to attend ſtrictly to the circumſtances under which the evacuation was made. General and indiſcriminate recommendation or interdiction, are, beſides being inconcluſive, founded for the moſt part more on hypotheſis than experience.[2] That in various circumſtances of the true plague, blood may be taken away, if not with advantage, at leaſt without injury to the ſick, is ſolidly confirmed not only by the eſtabliſhed practice in the Levant, but by the reſpectable teſtimony of phyſicians practiſing in Europe. The periods of its admiſſion have indeed been variouſly limited, ſome confining it to the firſt twelve hours, others extending it to twenty-four:[3] and it ſometimes, in nearly the ſame peſtilential ſeaſon, has been found of ſervice in one place, by the ſame phyſicians who had found it always detrimental in another.[4]

The ſafety of bleeding admitted, the propriety of it muſt depend on circumſtances clearly defined, and is not to be limited by hours or days. The progreſs of the diſeaſe variouſly rapid, renders ſome on the firſt day, ſubjects leſs fit for bleeding than others on the third; and ſometimes, though ſafe, it was wholly unne-

[2] "Illud enim obſervavimus, ſi peſte correptis vena ſecaretur, illos ad unum "omnes certo et cito obeiſſe." Diemerbroeck, lib. iii. p. 154.

"There poſſibly may be circumſtances in malignant and peſtilential fevers, which "may juſtify phlebotomy; but in a genuine peſtilence, it is not to be meddled with. "There is but one I can remember, who ſurvived it in the late ſickneſs." Hodges, Loimologia, p. 157.

[3] Foreſtus, lib. vi. Obſ. 17. Senertus de Febribus, lib. iv. cap. 6th.

[4] Traité de la Peſte, p. 364. Septalius in Animadverſ. N°. 6. lib. v.

ceſſary.

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ceſſary. Hence, in the firſt claſs, where the ſick were often reduced ſuddenly to a ſtate nearly the ſame with that of the advanced ſtages in other claſſes, bleeding, as in thoſe deſperate circumſtances, was ſeldom practiſed; or where injudiciouſly ventured, commonly did harm: and in the fifth, it might always, or for the moſt part, have been ſafely diſpenſed with.

In the ſecond, third, fourth, and ſixth claſſes, but eſpecially the two firſt, the low, ſunk ſtage is inſeparable from the diſeaſe, varying in its degree and the period of its acceſſion; but though, perhaps, its approach may be haſtened by evacuations, artificial or ſymptomatical, it cannot be prevented by any known method whatever, after the diſeaſe is once formed.

The main objections to bleeding, as well as the reſtrictions which that and other evacuations are laid under, ariſe from the apprehenſion of weakening thoſe natural powers of the conſtitution, which might ſucceſsfully be exerted in ſubduing the diſeaſe. In this light, bleeding is often accuſed of a pernicious tendency, and of haſtening the low and moſt dangerous ſtage of the plague.

How far this accuſation is well grounded, will be beſt determined by an impartial compariſon of caſes wherein bleeding had been practiſed, with others, ſimilar in their acceſs, where it was omitted: as alſo, by attention to the progreſs of the diſeaſe, where bleeding had been more than once repeated. But in the ſelection of caſes, care muſt be taken that the concurrence of ſymptoms at the beginning be nearly the ſame: a circumſtance which renders it difficult to find a ſufficient number of caſes for compariſon; for the low ſtage has often come on before application for advice, and a diſtinct account of the acceſs, or firſt ſtage, is not always to be collected from the aſſiſtants.

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I ſhall in a few words give the reſult of my own experience on this point. Upon finding the pulſe ſink ſo ſuddenly after bleeding,[5] I was at firſt inclined to aſcribe it to that evacuation, and to ſuſpect that in leſs plethoric habits, bleeding muſt prove ſtill more prejudicial; but I afterwards found the low ſtate inſeparable from certain forms of the diſeaſe, and often could obſerve no material difference in its progreſs, in caſes where bleeding had or had not been admitted.[6]

Where the ſick under my own inſpection, were bled more than once, I did not obſerve the low ſtate thereby hurried on; but it ſhould be remarked, that the quantity of blood taken away was moderate, and that indications were always ſtrong where bleeding was repeated. The journals afford a remarkable inſtance of a woman, who had been bled the ſecond day, and on the third was again bled at both arms at once.[7]

[5] Appendix Caſe III. XVII.

[6] In caſe II, I found the patient in the low ſtage, on the third day, though he had not been bled at all. Caſes VIII, IX, and X. The ſick had not been bled, but on the third or fourth day were found in the low ſtate. Caſe XVI. The pulſe on the fourth day was found low and fluttering, though the girl had not been bled.

In the woman, Caſe IV. who had been bled the third day, the pulſe remained moderately full on the ſixth; whereas, that of the girl (Caſe IV) who had not been bled, was low and ſunk. See Caſes LXXIII. LXXIV.

Caſe XII. A ſmall bleeding on the third did not ſink the pulſe. The patient, Caſe XXVI. was twice bled the ſecond and third days, without haſtening the low ſtage.

In Caſes XXI and LXXVII. a large bleeding at the beginning, and cupping on the fourth, did not ſink the patients, though in the former caſe he was rendered low by one or two looſe ſtools. But in Caſe CIII (attended with looſeneſs) intemperate bleeding on the third day, had a viſible effect in ſinking the patient; and indeed ſhe was bled in both arms at once. In Caſe XV. the patient was bled the ſecond, and the bowels cleared by a glyſter, but the low ſtate came on no ſooner than the fourth.

[7] Caſe CIII.

Where

Where bleeding at the beginning had taken place in weakly habits, which ſeemed ill ſuited to evacuations, its effects were various, and ſometimes the reverſe of what was expected; the pulſe kept up where blood had been drawn, and flagged where bleeding had been omitted. In ſome caſes the courſe of the ſymptoms appeared to be little affected by it; but collateral circumſtances muſt here always be attended to. In old ſubjects, or where a ſtupor attended the firſt day, bleeding might juſtly be ſuſpected of doing harm[8]. CHAP. V.

In regard to buboes, conſidered as an objection to bleeding, it may be remarked, that in a very large proportion of the infected, they made their appearance previouſly to the bleeding, or were protruded ſoon after it; and ſo far as I could perceive, neither their eruption nor progreſs ſeemed to be influenced by that evacuation. Indeed, where the pain of the tumor was exceſſive, early in the diſeaſe, I held bleeding neceſſary to moderate that and other inflammatory ſymptoms; for till the fever declined, the buboes never advanced kindly to maturation. I met with a few inſtances wherein, after copious bleeding, the incipient bubo ſeemed to recede[9]; but in the caſe referred to, it reappeared on the fourth day, after a hemorrhage from the noſe; and in the others, as I did not examine the parts myſelf, I was in ſome doubt as to the accuracy of my information.

Whether there be a period after the contraction of the peſtilential virus, when it may effectually be expelled, and the formation of the impending diſeaſe prevented by the timely uſe of emetics, as has been ſucceſsfully experienced in other contagious diſorders, is a point concerning which I can offer nothing from my own obſervation; but as the fact, with reſpect to malignant fevers, is ſupported by moſt reſpectable authority[10], it becomes

[8] Caſe LXIX. CII.

[9] Appendix, Caſe LXV.

[10] Lind's Diſſertation on Fevers, p. 218. Pringle's Diſeaſes of the Army, p. 295, 314. Huxham's Eſſay on Fevers, p. 109.

a mat-

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a matter of important inveſtigation to enquire how far, and to aſcertain the circumſtances under which a ſimilar practice might rationally be attempted in the plague. I ſhall have an opportunity hereafter to make a few remarks on this ſubject.

The native practitioners never adminiſter emetics in the plague; and I never had an opportunity of giving them till after the patient had been bled: indeed the general prejudice againſt them, left me few opportunities of giving them at all. In caſe of ſymptomatic vomiting, moderate draughts of warm water, chamomel or carduus tea, were ordered to encourage it. Where there was only a nauſea, or ineffectual retching, ipecacuanha was given; and ſometimes ſimple oxymel, *(ſkinjabeel)* a medicine more familiar to the natives. In a few caſes where a ſmall quantity of emetic tartar was added to the ipecacuanha, it was always found to operate too roughly.

When nauſea or retching were not ſymptoms, vomiting was never provoked by medicine, except where foulneſs of the ſtomach was indicated by the appearance of the tongue, or taſte in the mouth; which very ſeldom was the caſe. Emetics therefore were chiefly given with a view to the ſtomach and inteſtinal tube, and to promote excretion by the ſkin. Their effects with reſpect to the latter were the moſt ſenſible; for though they generally brought off bile, it ſeemed to be chiefly what was emulged during the operation, and they neither appeared to relieve the ſtomach, or to prevent a diarrhœa[11]. This however is not aſſerted from wide experience of them.

Where the retching did not ceaſe after the vomit and an anodyne, it became a dangerous ſymptom, in the ſame manner as the continuance of ſymptomatic vomiting. In this caſe a ſcruple of alkaline ſalt with a ſpoonful of lemon juice in the act of effervescence was found for the moſt part more efficacious than in

[11] Appendix, Caſe III. XVII. XXI. XXIII. LXXVII.

ordinary

ordinary malignant fevers[12]. Where it failed in ſtopping the vomiting, opiates and external applications were tried in vain[13]. CHAP. V.

The ſick ſometimes vomited worms[14]; but this occurred more rarely than in the ordinary putrid fevers of that country.

A diarrhœa was univerſally reputed ſo dangerous a ſymptom, that the popular dread of provoking it by medicine proved an unſurmountable obſtacle to purges at the beginning; even thoſe of the moſt lenient kind as well as glyſters were proſcribed, and it was with difficulty the natives could be perſuaded to admit a ſuppoſitory ſooner than the end of the week, though, at all other times, a favorite remedy with them. It was therefore ſeldom, however proper I might conceive it to cleanſe the firſt paſſages, that I had it in my power to effect it by laxatives at the beginning, and was often obliged to give way reluctantly to prejudices, in caſes where evacuations appeared to be highly neceſſary[15].

The neglect of purging at the beginning, was not followed by the conſequences which might rationally have been expected, and I never ſaw any acute diſtemper where coſtiveneſs was attended with ſo little inconveniency[16]. Nevertheleſs I think it rational,

[12] Appendix, Caſe III. XLVI. XLVII. LXXXIII. CVI.
[13] Caſe LXVIII. XCVIII.
[14] Caſe CXV.
[15] Caſe XLI.

[16] The coſtiveneſs ſo common and remarkable in the plague often ſurprized me, though I knew the ſame circumſtances had often been remarked in other parts of the world. Diemerbroeck is particularly explicit. "Purgantia & vomitoria maxima fugienda eſſe preter rationem in hac peſte etiam docuit uſus. Quapropter nos ante diem ſeptimam, nullis ne quidam cacochymis aut cathartica aut lenientia aut clyſteres, aut aliud quippiam, quod alvum citare poſſet, dedimus; & quamvis totis ſeptem diebus alvum non deponerunt ægri, nihil tamen movere auſi fuimus: pauciſſimis autem qui id tentaverant feliciter ceſſit, & fere in omnibus, diarrhœa ſubſecuta fuit incurabilis & brevi occidens." De Peſte, p. 158.

"Sunt

BOOK II. rational, by gentle means, to clear the bowels at the beginning from any colluvies that might happen to be lodged there; for though that did not conſtantly prevent looſeneſs, or other ſymptoms produced by matter pent up, and rendered more putreſcent by the fever, yet, I think, it ſometimes had that effect; and paſſage of the bowels often appeared to relieve the head, both in the augment and decline of the diſeaſe [17].

But wherever purgatives are given, the moſt lenient are eligible; ſuch as caſſia, ſalts, manna, or rhubarb with cream of tartar. The more active were very apt to produce ſuperpurgation; and even ſena in full doſe was ſeldom given till towards the termination of the diſorder. I am aware that a ſupervening diarrhœa merely ſymptomic, was often aſcribed unjuſtly to the laxative given ſome days before; but at the ſame time I was convinced from the effect of the lenient purges, that the bowels were generally in a very irritable ſtate, and conſtantly obſerved, in a few caſes where more active ſtimuli were conjoined, that they proved prejudicial.

I generally adviſed purging twice or thrice at the end of the diſeaſe, more eſpecially in caſes where the buboes had diſperſed; but the advice in many inſtances was not followed; without however producing the ill conſequences predicted of neglect [18]. An anodyne was always given after the purge.

A ſpontaneous looſeneſs appeared in a few inſtances to be of ſervice [19], at leaſt not detrimental: but in general was found to

"Sunt purgantia quemadmodum in reliquis malignis, ita et in peſte ſumme "periculoſa.—Experientia ſufficientur demonſtravit omni tempore, non modo for- "tiora purgantia ſed & mitiora lenitiva tam in principio quam ſtatu ac decremento "fuiſſe peſſima. Imo & clyſmata plerumque in majus periculum conjecerunt." Rivinus de Peſte, p 893. Here matters ſeem to be carried to an exceſs: in like manner as the opinions of Diemerbroeck and Hodges in regard to bleeding.

[17] Caſe LI. LVII. LXV. LXXX.

[18] Caſe XC. XCIX. CI.

[19] Caſe XCIX.

be a dangerous ſymptom. Where it attended from the firſt, and continued through the ſecond day, an attempt was then made to check it by diaſcordium or other opiates, and, when ſlighter, by the white decoction. The ſtools were ſeldom accompanied by gripes, and checking it without previous purging, was productive of none of the conſequences uſually obſerved in ordinary fluxes. CHAP V.

I was at firſt apprehenſive that the opium in the diaſcordium might perhaps increaſe the ſtupor or comatous diſpoſition, when it was preſent, or favour its approach, when not yet come on. But finding this not to be the caſe, I uſed opiates in 1762, much more freely than I had done in the former years, and, in general, remarked, where they ſucceeded in ſtopping the looſeneſs early in the diſeaſe, that the patient became more alert and ſenſibly better. In the more advanced ſtages, the aſtringents and opiates rarely checked or ſuppreſſed the looſeneſs, and as coma, where opiates had not been given, was often alſo a concomitant ſymptom at that period, the increaſe of it, where given, was not always, though it ſometimes might be, owing to the narcotic remedies.

As I had no opportunity of exhibiting emetics in the plague, with a view of preventing the formation of the diſtemper, ſo I had very few of adminiſtering ſudorifics early enough to encourage hopes of that kind: and never of puſhing the ſweat to the length preſcribed by thoſe practitioners whoſe intention it was by ſuch means effectually at once to expel the peſtilential virus.

In a few caſes I tried the ſpiritus mindereri in pretty large doſes, the firſt day, immediately after bleeding, and before the eruptions had appeared. In moſt of them it failed in producing a ſweat, and in the others, though a ſweat followed, no remarkable variation was obſerved in the courſe of the ſymptoms. This ſpirit was preferred to the warmer ſudorifics, becauſe where it

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failed in its operation by the ſkin, it paſſed eaſily off by urine, and did not heat the body in the manner they always were obſerved to do: a circumſtance the more deſirable, as at ſo early a period it was impoſſible to foreſee the length or degree of force of the impending inflammatory ſtage. But my experiments here were too few to juſtify concluſions; beſides which, I ſuſpect that proper dilution was neglected. Where a ſweat was raiſed, it never was kept up nearly the time directed by Foreſtus and Diemerbroeck. The impatience of the ſick and obſequiouſneſs of attendants, who ſeldom could be perſuaded to comply with medical orders, which bore the appearance of ſeverity, rendered the riſk of checking artificial ſweats, not leſs to thoſe in opulent circumſtances, than to the indigent, who had few conveniencies, and few to nurſe them: and as all who have recommended the ſweating method concur in aſſerting the danger of the ſweat being improperly checked, ſo artificial ſweats appear to be much more readily affected by expoſure to cold than ſweats riſing ſpontaneouſly; the latter having been often obſerved at the critical periods of the diſeaſe to flow freely, in ſpite of imprudence on the part of the ſick, and negligence of the nurſes in point of covering.

But beſides the difficulty of ſecuring compliance with directions, and the riſk of diſobedience, other obſtacles preſented to the frequent trial of the ſweating method with probability of ſucceſs. Among theſe were the early appearance of buboes in a large proportion of the ſick; the inability of the ſtomach to retain internal remedies, and the delay of application for aſſiſtance in due time.

Where the trial was made, the ſudorifics uſually employed were the ſpiritus mindereri, the ſaline draughts, and cold water. Though theſe for the moſt part proved ineffectual, others poſſeſſed of higher powers might perhaps have had better ſucceſs; and I have often, on reflection, regretted the not having tried the

antimonial medicines in nauſeating doſes, combined with opium. But the antimonials in that form had not, when I left Britain, been ſo generally, as they now are, received into practice, and the ſmall proportion of emetic tartar occaſionally joined with the ipecacuanha, commonly operated ſo roughly, as deterred me from venturing ſudoriſics, of which I had little experience, and which if once ſuſpected of moving the ſtomach or bowels, would effectually have deſtroyed all future confidence in my preſcriptions. CHAP. V.

The opportunities of a fair trial preſenting ſo ſeldom, together with the inefficacy of the remedies, and ill ſucceſs where the experiment had been made, induced me, after ſome time, to relinquiſh the partial proſecution of a method that promiſed ſucceſs only when carried to the full extent, which thoſe had done who recommended it from their own experience. But this, in my ſituation, ſtanding expoſed to many impediments, and having never remarked nature herſelf at ſo early a period attempt the expulſion of the diſeaſe by ſweat; I judged it ſafer as well as more expedient to turn my attention to the ſpontaneous courſe of the diſeaſe, and to regulate the ſudoriſics on the plan of thoſe practitioners who encourage a determination to the ſkin, by remedies either ſo little ſtimulant or in ſuch ſmall doſes, as run no riſk of augmenting the inflammatory diatheſis.

The medicines uſed for this purpoſe were ſaline draughts, ſpiritus mindereri, elixir paregoricum, compound contrayerva powder of the Edinburgh diſpenſary, nitre, ſerpentary and bark; together with dilution as copious as the condition of the ſtomach would admit. The contrayerva powder was the officinal compoſition moſt generally uſed, and exhibited either in ſome of the ſimple diſtilled waters, in repute in that country[21], or in mixture with the ſaline draught or ſpiritus mindereri.

[21] Aqua nymphœæ, ſcorzoneræ, cardui benedicti, ſalicis Ægyptiacæ.

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Sometimes in the advanced ſtages, the ſerpentary and contrayerva roots were given ſeparately in large doſes, in ſubſtance or in decoction. The former was found too hot and ſtimulant, as well as diſagreeable to the palate; the ſmall ſtock of the latter was an objection to its conſumption in decoction; but in the few inſtances wherein they were tried, they were not obſerved to operate more powerfully than in the ordinary officinal compoſition[22].

As a diaphoretic or antiſpaſmodic, camphor and valerian were ſometimes given, but I had little experience of the former, on account of a prejudice prevalent among the Mohammedans, that the internal uſe of it, owing to its cold quality, is apt to produce impotence.

Nitre was frequently joined with the contrayerva powder in the inflammatory ſtage; but in 1762, it ſeemed ſo ſenſibly to affect the bowels, that it was rarely uſed after the beginning of the ſummer of that year. The alkali and vegetable acid neutralized ſometimes alſo produced looſe ſtools, but where they failed in determining to the ſkin, they were more apt than the nitre to paſs off by the kidneys, and on that account were preferred.

The bark in ſubſtance was tried only in ſmall doſes, or employed only as a ſubſtitute in compoſition for the contrayerva root; in decoction, it was ſeldom given; but very often in tincture, in the decline of the diſeaſe.

I never uſed the theriac, and very rarely the volatile alkaline ſalts; the apparent heating quality of both was a ſtrong objection with the natives; and, where I judged opiates proper, I preferred them

[22] The contrayerva root being nearly expended, I was for ſometime under the neceſſity of ſubſtituting ſerpentary in its place, but the medicine, on account of the increaſed bitterneſs was taken with more reluctance.

[23] Caſe XXXII.

ſimple,

CHAP. V.

ſimple, in more determinate doſes, than in the complex form of the theriac. The diaſcordium was uſed principally as an aſtringent in caſes attended with looſeneſs, and was prepared with and without opium.

The bezoar, in ſmall doſes of four or five grains, was more univerſally adminiſtered by the natives than any other remedy whatever, and always uſurped the merit of the cure where the patient recovered. Though I had no confidence in that medicine myſelf, I always ſubmitted, when it was propoſed, from a notion of its doing no harm. I never could obſerve any ſenſible effect from it; but it was taken with much prejudice in its favour by the natives of all ranks, and, being a coſtly article, was diſpenſed gratis by the rich. In ſome caſes a vomiting immediately followed the exhibition of it, but this did not happen ſo conſtantly as not to leave it doubtful whether the vomiting was not merely ſymptomatical; and it might ſometimes be owing to the indelicate mode of exhibiting the drug in the patient's own urine[24].

The mild ſudorifics exhibited, in the manner above deſcribed, every five or ſix hours, very often produced no perceptible increaſe of perſpiration[25]; at other times a ſweat was obſerved to follow[26]; but as natural ſweats were at certain periods incident to the diſeaſe, the ſweat was not raſhly to be conſidered as always produced by the medicine that had been given. Where the natural diſpoſition happened to coincide with the operation of the ſudorifics, they no doubt might aſſiſt; where that prediſpoſition was abſent, they were not of power ſufficient to raiſe a diaphoreſis[27]. I think this will appear evidently from the ſub-

[24] Appendix, Caſe LV. LVI. LXX. LXXIII.
[25] Caſe XXVII. XXX. XXXVI. XLVIII. LVI. LXXVIII. LXXXVI.
[26] Caſe XII. XXXII. XLI. LII. LVII. LXV. LXXI.. LXXIII. LXXVI. LXXVII. LXXXII. LXXXVIII. XC. XCVII. CI.
[27] Caſe XXXVII. XXXVIII. CI.

joined

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joined journals; for in many inſtances where remedies were to tally neglected, or taken in very inconſiderable doſes, the courſe of the diſeaſe, in reſpect to ſweats, varied very little from that in caſes where they had been regularly adminiſtered.

It is difficult in this point, as in others connected with ſo variable a diſeaſe as the plague; to collect a competent number of caſes exactly analogous for the forming a comparative eſtimate. It appeared to me, as far as I could obſerve, that where there was no prediſpoſition naturally to a diaphoreſis, the ſudorifics employed ſeldom or ever had effect: they did no harm; but a certain concurrence was indiſpenſably requiſite to render them effectual. Hence, as they did not appear to be of ſervice in the firſt three claſſes, and were ſeldom required in the fifth, their utility ſeemed to be confined to thoſe forms of the diſeaſe arranged under the fourth and ſixth claſſes; and it ought conſtantly to be held in remembrance, that a number of the infected comprehended in theſe two claſſes, recovered without any aſſiſtance from medicine.

I ſhall hereafter have a more proper opportunity of aſſigning my reaſons for thinking that it has been chiefly, if not only in theſe two claſſes, that medical art hitherto can be allowed to have juſt pretenſions to much ſucceſs. In regard to the firſt three claſſes, the various and oppoſite methods of treating the diſeaſe, will on an attentive peruſal of the peſtilential caſes recorded in books, appear to have proved almoſt conſtantly unfortunate. In theſe therefore a field remains open for concerting new methods of cure, founded on the modern improvements in phyſic, and a careful review of ancient errors. But in the application of paſt experience to this purpoſe, it will be abſolutely requiſite to keep theſe three claſſes ſtrictly ſeparate from the others.

From

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From what has been remarked above, in reſpect to the little difference ſometimes obſervable in the progreſs of the diſeaſe, where ſudorifics were or were not given, I wiſh not to be underſtood as holding an opinion of their inutility in caſes belonging to the fourth and ſixth claſſes, in which they were ſo frequently adminiſtered. Though they often were productive of no ſenſible ſweat, I preſume not to aſſert they had no effect whatever; though critical ſweats, or a kindly moiſture on the ſkin, were certainly incident to the diſeaſe independent of ſudorific remedies, yet where theſe had been given, I think they may rationally be ſuppoſed to have ſomewhat aſſiſted the efforts of nature; and indeed where they were punctually taken, the moiſture on the ſkin appeared to me, to be more conſtant, than where they were irregularly taken or wholly neglected.

I do not think that a ſcruple or half a dram of contrayerva powder, given once or twice a day, can be ſuppoſed to have much efficacy, and on that account conſider a number of the ſubjoined caſes as exhibiting the courſe or progreſs of the diſeaſe, unaided and undiſturbed. But even in theſe diminutive doſes, remedies were in another reſpect of ſome ſervice; for as long as they were continued, the ſick, cheriſhing hope, were more eaſily kept in ſubjection; they were better attended, and the aſſiſtants were reſtrained from indulging them improperly, which was infallibly the caſe whenever the patient was conſidered as left by the phyſician, either in a deſperate or convaleſcent ſtate.

I had not, at that time, acquired ſufficient influence with the natives, to extend the practice of bliſtering, which had been introduced by my brother;[28] it was therefore ſeldom that I had an opportunity of availing myſelf of what I conſidered as a valuable remedy. But ſinapiſms were readily admitted, and were often applied with benefit, ſometimes with remarkable ſucceſs.[29] They

[28] See Natural Hiſtory.

[29] Caſe LXXI. XCVIII. C. XXIV. XXXIV. XLVI. LXV.

were

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were uſually applied to the ſoles of the feet, in the evening, or before the expected exacerbation, not only in the advanced ſtage, but, where the head or tongue were much diſordered, in the earlier ſtages alſo. They were removed upon the patient complaining much of them, and were occaſionnally repeated. Care was taken to waſh the parts well with tepid water when the cataplaſms were removed, and in caſe of extraordinary tenderneſs or inflammation, a poultice of bread and milk was applied in the intervals. In this manner, without any remarkable diſcharge, a ſtimulus was eaſily moderated, and longer continued than that of the cantharides; but there were circumſtances, no doubt, in which bliſters might have proved more effectual.

Thirſt and other febrile ſymptoms were palliated by the uſual means. Anxiety, pain at the heart, debility, and hemorrhage remain to be conſidered: for as to the dulneſs of hearing, and impediment of ſpeech,[30] which ſometimes remained for ſeveral months after the patient was in other reſpects well, they went off in time without medical aſſiſtance.

Anxiety, pain at the heart, and ſinking or debility, were almoſt conſtant concomitants, in ſome degree, and urgently required ſome attention. The remedies found moſt effectually palliative in theſe ſymptoms, were ſimple cordials compoſed in the inflammatory ſtage, of the grateful diſtilled waters and dulcified ſpirit of nitre.[31] Theſe were given in the intermediate hours, without interfering with other remedies, and proved highly agreeable; the ſick eagerly aſking for them, and declaring they felt the weight at the heart, as if it were, lightened immediately upon ſwallowing two or three ſpoonfuls. In the low ſtage, confection of alkermes, a cordial in popular eſteem, was added, and ſometimes ſpirits of lavender, tinctures of ſaffron and valerian, and volatile

[30] See before Chap. II.

[31] ℞ Aq. Nymph. ℥iv. Melliſſ. ʒiii ſp. Nitr. d. ʒi Syr. Aurant. ʒß. M.

aromatic

aromatic ſpirit, inſtead of the ſpirit of nitre.[32] Theſe alſo were grateful to the ſick, but the malady being now confirmed, and the concurrence of other ſymptoms more alarming, the benefit derived from them was leſs perceptible. Remedies in any conſiderable degree nauſeous, were given ſeparately from the cordials, and at ſtated hours. CHAP. V.

The ordinary drinks were uſually accidulated either with lemons, pomgranates, the juice of grapes, or the mineral acids; except where the patient had an averſion to ſours, or where they diſagreed with the ſtomach. To the poor, who could not at all times procure the ripe fruits, the ſpirit of vitriol was ſometimes diſpenſed in the form mentioned by my brother,[33] and ſometimes mixed with conſerve of roſes, to be diſſolved in water or ptiſan of graſs roots.[34] The ſymptoms for which cordials were ordered, were ſometimes alleviated by the acidulated drinks alone: but an obſtacle to the free uſe of them, often aroſe from a vulgar notion of their being very apt to effect the tongue; and as faltering in ſpeech was no unuſual ſymptom of the diſeaſe, it became prudentially requiſite to ſecure them from blame by a well timed prediction.

To what has been ſaid before on the ſubject of hemorrhage, it is unneceſſary to add any thing here, more than relates to the medical treatment. Hemorrhages from the uterus were generally the concomitants of abortion, and ſeldom or never obſerved in women not pregnant. But though the caſes in which they occurred, for the moſt part, terminated fatally, the loſs of blood, in the few

[32] ℞ Aq. Salicis Ægyt. ℥iv. Meliſſ ℥ii Flor. Aurant. ℥i
Confect. Alkerm. ʒiß Sp. Lav. comp. Vol arom. aaʒi
Syrup. e ſucc. Aurant. ℥ß. M.

[33] Spirit of Vitriol and ſyrup of violets to be added to plain water.

[34] This form was intended merely for the convenience of the poor, who were not always ſupplied with phials, and could thus more ſafely tranſport the ſpirit in a coffee cup.

BOOK II. inſtances I met with, was ſo inconſiderable, that I found no reaſon for attempting to reſtrain it.

In ſome inſtances of hemorrhage from the noſe, I unſucceſsfully tried the pulvis ſtipticus of the Edinburgh Diſpenſary. The mineral acids, tinctura roſarum, and application of cold to the neck, had little or no effect. The ſymptom in general was unfavourable; where it proved otherwiſe, and even where the iſſue was fatal, the hemorrhage often ceaſed ſpontaneouſly; but it was dangerous only in concurrence with other bad ſymptoms; for the quantity of blood loſt was very often ſmall, and a few inſtances were met with of recovery where the hemorrhage had been uncommonly copious.[35]

I ſhall now, by way of recapitulation, preſent an abſtract ſketch of the method of cure which I uſually purſued in the plague.

Bleeding was recommended as early as poſſible, but ſeldom repeated, where a quantity deemed ſufficient had been taken at firſt; except where particular circumſtances rendered it clearly requiſite.

Where vomiting was a concomitant ſymptom at the beginning, it was encouraged by draughts of warm water or chamomel tea, till the ſtomach appeared to be cleared of bile, or any other coluvies. Where nauſea only attended, the ſame means were employed, aſſiſted by a feather; but where theſe proved ineffectual, eſpecially if, at the ſame time, there was a bitter or diſagreeable taſte in the mouth, ten or fifteen grains of ipecacuanha were given at once, which generally operated ſufficiently upwards, and produced alſo one or two ſtools. The remiſſion was the time preferred for giving the emetic, and an opiate was adminiſtered after the operation was over.

[35] Caſe LXXVI. XCI.

Where

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Where neither nauſea, nor ill taſte in the mouth were preſent, the ſtomach was left undiſturbed; and though, in this ſtage, it might, perhaps, have been proper to cleanſe the inteſtinal canal, a laxative, on account of impediments before mentioned, was ſeldom given.

Where ſymptomatic vomiting continued too long, and by its frequency fatigued the patient, the ſaline draught in effervescence, and ſometimes opiates and external applications were employed.

As ſoon as the ſtomach was ſettled, mild ſudorifics were adminiſtered in ſmall doſes, repeated every fifth or ſixth hour. Nitre was joined with the compound powder of contrayerva, at the beginning, but when it appeared to occaſion looſe ſtools, was left off. The ſpiritus mindereri and ſaline mixture were alſo given as ſudorifics.

Where a diarrhœa attended from the firſt, or ſupervened afterwards, dilution was firſt ordered, and then the white decoction; it being very ſeldom the ſick could be prevailed on, or rather the aſſiſtants, to admit of rhubarb, or any other laxative: if it ſtill perſiſted, as it never was obſerved to prove critical or of any ſervice, attempts were made to check it by diaſcordium and opiates.

In the advance of the diſtemper, the ſudorifics were given more or leſs frequently, according to circumſtances; a mode preferred to the augmenting the doſe, which commonly gave diſguſt, and occaſioned the remedies to be rejected all together. The ſame conſequences attended the heightening the power of the ſudorifics, by the addition of ſerpentary, which ſometimes was attempted in the low ſtage. The general ſcope in the direction of theſe medicines was to regulate their operation ſo as to coincide with the periodical determination to the ſkin, obſerved in the natural courſe of the diſeaſe.

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As the operation of ſudorifics of ſuch low powers required every kind of aſſiſtance, dilution was particularly attended to; and where thirſt was abſent, the ſick were encouraged to drink frequently of whatever drinks happened to be moſt agreeable to them, and either warm or cold at their option. Acceſs of cool air to the chamber was conſtantly permitted, and where the chamber was not airy, the bed was removed to the open divan, or the houſe top: but towards the height of the exacerbations, upon the firſt appearance of moiſture on the ſkin, the ſick were kept moderately covered up from the chin downward. The ſlight ſweats encouraged in this manner, though not critical, proved ſo far of ſervice as they helped to induce calmer remiſſions, which were the proper opportunities for adminiſtering nouriſhment.

The diet was the ſame as in other acute diſtempers. Of the animal kind nothing ſtronger than chicken broth was admitted; the reſt conſiſted of the farinaceous and leguminous vegetables, and ſome of the ripe fruits. The pomegranate of a middle ſort, between the ſweet and ſour, afforded a very grateful refreſhment, but the juice only was ſwallowed. The water melon was ſtill more eaſily procured, and, where thirſt was exceſſive, was a ſafe indulgence. Sherbets of lemon, viſna cherry, or mulberries, with biſcuit or bread, were grateful to the ſick, when the ſtomach loathed other nouriſhment. It was certainly neceſſary, to a certain degree, to ſupport nature by proper food, but to force it upon a naufeating ſtomach ſeems to have been irrationally recommended; and where attempted, which the over care of the nurſes often did, uſually excited vomiting. I ſometimes wiſhed to give wine, but a religious bar lay in the way of the Mohammedans, and a prejudice againſt it, in all fevers whatever, rendered it equally inadmiſſible among the Chriſtians and Jews.

A delirium or coma on the firſt night, were left to take their courſe till the effect of the bleeding or other evacuations ſhould be known; but if they ſtill continued or increaſed the ſecond or third night, as well as in any ſubſequent period, eſpecially where the

pulſe was low, ſinapiſms, or cataplaſms compoſed of garlic, dough, and vinegar were applied to the ſoles. Bathing the legs was alſo recommended for relieving the head-ach and delirium, but was an operation attended with too much trouble to become a general practice.

For oppreſſion at the præcordia, mild cordials, accidulated drinks, and cool air were found of ſervice.

After the height and through the decline of the diſeaſe, the bark in ſubſtance, or Huxham's tincture, were ſubſtituted for the ordinary ſudorifics.

As ſoon in the decline of the diſeaſe as my influence could prevail for their admiſſion, a purging potion was directed, and repeated twice or thrice, eſpecially in caſes where the buboes had diſperſed.

Where irregularities in diet were committed in the convaleſcent ſtate, the uſual conſequence was a diarrhœa. This required the ordinary treatment; but was not, as in the former ſtages, to be checked without previous purgation.

It is a prevalent notion in the Levant, not confined to Aleppo, that irregularities of diet in the plague before the expiration of forty days, are very apt to produce relapſes, characteriſed by new eruptions[36]. So far as my own obſervation went, I am inclined to doubt this; at leaſt it does not hold true univerſally. Relapſes, ſo characteriſed, are very rare, and bear no proportion to the frequent irregularities committed by the convaleſcents from the plague. The ſucceſſion of eruptions, and their protruſion

[36] "A Peſte convaleſcere incipiens, ſi ante quadrageſimum gravem aliquem in "diæta errorem fecerit, novo erumpente bubone moritur. Timoni, Phil. Tranſactions, "Vol. XXXI.

very

BOOK II. very late in the diſeaſe, have already been mentioned in another place[37], and in the following chapter on reinfection, an opportunity will offer of entering upon the ſubject more at large.

The CHIRURGICAL TREATMENT OF THE ERUPTIONS was extremely ſimple. A poultice of bread and milk was applied at firſt to the bubo, and continued till the full maturation of the tumor; but as the impatience of the ſick diſpoſed them ſtrongly to change of remedies, the poultice was ſometimes varied, by the addition of ſaffron, and the meals of linſeed and fœnugreec, in order to prevent recourſe being had to leſs proper applications. The natives employed a variety of cataplaſms and plaſters. A mixture of flour, bran, yolk of egg and oil, kneaded together, was common; as alſo a roaſted onion excavated, and ſmeared with oil. I ſometimes ordered, for form ſake, more compound cataplaſms of the emolient herbs, althea roots, the meals, &c. but found nothing anſwer better than the ſimple poultice of bread and milk.

This is to be underſtood of the buboes when protuberant, and very painful, attended with ſerious ſymptoms which confined the patient to bed; for ſometimes, in the fifth claſs eſpecially, the trouble of keeping the cataplaſms on the part, made many prefer a plaſter, with which they could walk about with leſs inconvenience. For this purpoſe a large quantity of the *emplaſtrum gummoſum*, *Phar. Edin.* was prepared with olive oil, and an increaſed proportion of wax to give it a firmer conſiſtence; but it being neceſſary, now and then, to make a change, a portion of the plaſter was tinged with dragon's blood. The plaſters as well as internal remedies, being diſpenſed gratis, proved the means of inviting a great concourſe of patients, of whom, as before remarked, many had occaſion for little more than external applications.

[37] Chap. IV.

In

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In more formidable cafes, the plafters, when applied early, occafioned much pain, and feemed by no means fo proper as the cataplafms; but in the fecond week, when the inflammatory fymptoms had abated or difappeared, they anfwered extremely well, and haftened the external inflammation of the fkin. In many cafes they were continued till the abfcefs broke; though, where the tumor was large, and much inflamed, it was always better to change them for a poultice, which lay eafier on the part, and ferved to aſſwage pain[38].

The

[38] The mild method of treating the buboes was adopted by Foreſtus, Diemerbroeck, and Hodges. The topical applications employed by ſome of them were, according to the faſhion of the times, unneceſſarily compounded of a farrago of uſeleſs ingredients, which ſuperſtition or ancient cuſtom had inveſted with imaginary powers; but all of them had at times recourſe to ſimpler remedies, and ſuch as were more eaſily procured and prepared. The College of Phyſicians at London, in 1665, made little alteration in this reſpect from their former orders, reſtrained probably by reſpect to their predeceſſors, and in compliance to popular prejudices in favour of antidotes. Foreſtus, lib. vi. v. i. p. 223. Diemerbroeck, p. 208. Hodges, p. 193. Directions by the College, Lond. 1665, xxiv, &c.

M. Bertrand, at Marſeilles, declares expreſsly in favour of the mild treatment of the buboes, and condemns the pomp in preſcription of external applications: "Le traitement éxterieur ne doit pas être moins ſimple et moins benin que celui "du dedans," &c. Traité de la Peſte, p. i. p. 379.

Meſſrs. Le Moine and Bailly's method of the treatment of buboes, agreed with that of M. Bertrand, they diſapproved expreſsly of the extirpation of the glands.

"Pour les bubons, c'eſt un préjugé auſſi faux que dangereux, de vouler les ex-"tirper dès le commencement. Le Malade accablé par les accidens qui les accom-"pagnent toujours, ou n'a pas la force de ſupporter les opérations, ou eſt mis en "danger de perdre la vie, par les hémorrhages fréquentes qui ſurviennent, les "quelles par la grand diſſolution du ſang ſont très difficiles à arrêter.

"Il eſt donc plus à propos & l'expérience réitérée, que nous en avons nous-le "confirme de fair appliquer deſſus des cataplaſmes émolliens ordinaires & de les "conduire à parfaite maturité, à moins que par les ſueurs abondantes & conſidé-"rables, le virus ne fût en partie diſſipé; auquel cas nous faiſons appliquer l'em-"plâtre d'Angelus ſala pour les réſoudre entierement." Traité de la Peſte, p. 365.

I The

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The progreſs and maturation of the buboes depending ſo evidently on the ſtate of the general diſeaſe, little was to be expected from topical remedies till ſuch time as the diſeaſe ſhould take a favourable turn; and indeed till that happened, they ſeldom were obſerved to make any ſteady progreſſion. The proceſs of ſuppuration ſeemed here, as in other inſtances, to be moſt ſecure under the conduct of nature herſelf, and to go on moſt proſperouſly where ſhe was left free and undiſturbed by the unſeaſonable irritation of topical remedies, or painful operations. This opinion, to my comprehenſion, is not only rational, but appears to be ſupported by the bad ſucceſs of an oppoſite practice, deducible from the greater part of the peſtilential hiſtories which, with another view, have been produced in its recommendation[39].

The

The Letter of Meſſrs. Moine and Bailly is dated the 10th of November, 1721. Theſe gentlemen arrived at Canourgue the end of June, and immediately declared the diſtemper to be the plague, tranſmitting a certificate to that purpoſe to court. From Canourgue they went to Marvejols, the beginning of September, and on the 25th drew up a very diſtinct declaration, importing, that the diſtemper that had raged there for ſome time (and had been qualified with various names) was the real plague, and in all appearance more contagious than at Canourgue. See Traité p. 571. It is worth while to compare this *procés-verbal* with that ſaid to be ſent by M. Chicoyneaux from Marſeilles, the 18th of Auguſt, which I do not find in the *Traité*, but in the relation Hiſtorique, p. 114.

M. Rochevalier, a phyſician of Marvejols, agrees with the above gentlemen in the treatment of the buboes. "Nous fumes obligés de renoncer à la pratique d'ouvrir "les bubons avant leur maturité. - - - - - Nous nous ſervions des ſuppuratives "& mondificatives ordinaires. Traité, p. 601.

[39] On the head of the chirurgical treatment in the plague, it is obſerved by Senertus, that ſome phyſicians were of opinion all violent methods and applications ought to be avoided, as productive of bad conſequences by their irritation; that the method of nature, which in the work of maturation ever proceeds by a ſlow and gradual proceſs, ſhould be ſtrictly attended to, and art attempt no more than to aſſiſt by the application of emolient and ſuppurative topicals. But others differing in opinion, conceived that there was danger, under this lenient treatment, of the morbific matter thrown upon the gland being re-abſorbed into the habit, before ſuppuration could take place, and on that account thought it expedient to procure

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The dependance of ſuppuration on the ſtate of the fever, and general diſeaſe, was further evident from the various periods of its completion, under an external treatment exactly the ſame. In a few caſes the bubo opened the tenth day, but for the moſt part between

an immediate outlet by means of bliſters, inciſion, &c. In certain circumſtances, that is in ſlight caſes, he approves of the firſt method; but where the ſymptoms continue formidable after the protruſion of the bubo, he then approves of the other— "tunc fruſtra expectatur maturatio quæ in materia tam venenata ante mortem "ægri nulla futura eſt." Senertus de Febribus, lib. iv. cap. 6.

The Montpelier phyſicians, and ſeveral of the French ſurgeons, in 1720, adopted a practice founded on this latter notion, the ſucceſs of which will be beſt collected from the particular caſes they have left on record.

Their method, according to M. Chicoyneau, in the alarming caſes where there was not time to wait the ſlow operation of emolients, &c. was to apply cauſtic, ſo as to affect the whole ſurface of the tumor; then by cutting through the eſchar to lay bare the glands, which if moveable, were extirpated by the knife, if it was practicable without danger of hemorrhage, otherwiſe they were to be a little ſcarified, and by the application of digeſtive ointments, &c. totally deſtroyed. The digeſtives conſiſted of the common ointments ſharpened with oil of turpentine, ſpirituous tinctures of myrrh and aloes, ſal ammoniac, and camphorated ſpirit. The parts were waſhed with lotions, vulnerary decoctions, &c.

An hemorrhage ſupervening theſe operations, they obſerved, proved always fatal however moderate, and for that reaſon had thought fit to reject the method of extirpating the buboes, which was practiſed at Marſeilles before their arrival. Traité de la Peſte, p. i. p. 237.

The Relation Hiſtorique de la Peſte de Marſeille, p. 379. denies, in expreſs terms, that the practice thoſe gentlemen pretend to have rejected, exiſted in Marſeilles before their arrival. "Ils l'avancent hardiment quoy que ce ſoit un fait public & "conſtant que cette méthode étoit inconuë en cette ville avant leur arrivée et qu'ils "ſont les ſeul médicines qui l'ont fait pratiquer; parcequils étoint ſeuls dans cette "opinion que tout le venin ſe cantonnoit dans la glande & qu'en l'extirpant on "emportoit par là tout le venin."

The Montpelier phyſicians had, by their ſupercilious behaviour, given juſt offence to thoſe of Marſeilles, and the author of the Relation Hiſtorique, partial perhaps to his fellow citizens, may have eſpouſed their reſentment. But he makes a pleaſant enough reflection on their diſſentions: "Ne verrons nous jamais les mede-"cins d'accord entre eux & ſerons-nous toujours obligés de confier notre vie à des

BOOK II. between the 15th and 22d, they ſometimes lingered eight or ten days longer.

Several of the caſes referred to in the notes, ſhow likewiſe that the early inciſion of the buboes, extirpation of the glands, and ſcarifications, inſtead of haſtening ſuppuration, ſeemed often to retard it beyond the uſual period where buboes were treated mildly; and that no kindly ſuppuration took place before the general diſeaſe had taken a favourable turn.

In

" gens qui ne s'accordent le plus ſouvent que pour trouver les moins de la détruire? " P. 350."

The teſtimony of M. Bertrand concurs with that of the Hiſtorical Narrative in reſpect to the extirpation of the glands. Traité de la Peſte, p. i. p. 380.

The faireſt way of rating the advantages of the practice being by a review of the caſes which thoſe, by whom it was adopted, have produced in its vindication; I ſhall make a few remarks on two or three of the caſes given by M. Chicoyneau and his colleagues, referring ſimply to the others.

In Obſ. 1. cl. ii. p. 254. As the bubo was advancing favourably under the emolient cataplaſms, the application of cauſtics the third day, and extirpation of the glands, ſeem not only to have been wholly unneceſſary, but may be ſuſpected, by their irritation, of having exaſperated, though not produced, the concomitant ſymptoms. It may further be remarked, that there was neither vomiting, diarrhœa, nor coma, and that in ſimilar caſes, where the buboes were left to themſelves, they have often been obſerved to terminate proſperouſly.

Obſ. 2. cl. iv. p. 287. M. Verny, in his reflections on this caſe, aſcribes the patient's eſcape ſolely to the external treatment, and as what he ſays on the ſubject places M. Chicoyneau's opinion in a clear point of view, it merits conſideration. P. 291.

Nothing had been done the firſt four or five days, the eruptions were advancing under the pure conduct of nature; no evacuations interpoſed to diſturb her; cordials alone were given. Had the firſt bubo been left to itſelf as the ſecond was, would it not, at a certain period, have come like that to ſuppuration? Theſe gentlemen contend for the contrary. " J'oſerai même avancer que ce n'eſt que par un " effet, du pur hazard, je veux dire, d'une diſpoſition particuliere, qu'on ne ſau- " rois prévoir ni déterminer, que nous avons vû des bubons & des charbons crôitre " & ſuppurer & les malades échapper par les ſeules forces de la nature."

Here

CHAP. V.

In general the buboes were left to open of themſelves, for the lancet, comparatively, was uſed very ſeldom, and where it was admitted, the inciſion was commonly made with ſo ſparing a hand that it proved of little ſervice. Had proper perſons been in the way to undertake the chirurgical part, I certainly ſhould often have adviſed an artificial opening; becauſe ſuppuration of the gland had often taken place when the external appearances of the tumor gave no ſigns of a ſpeedy outlet to the matter. Perhaps to the abſorption of part of this matter of the abſceſs might be owing the erratic febrile paroxyſms or exacerbations which continued ſometimes to haraſs the patient for ſome time after he was out of all danger, and for which the tincture of bark was commonly ordered: other ſymptoms might proceed from the ſame cauſe; and, at any rate, the diſcharge of the matter, when once formed, was undoubtedly to be deſired.

But

Here the fact, that ſome left to nature recover is acknowledged, though afterwards reſtricted to caſes of ſlight infection. But others, who never adopted their harſh method, aſſert the direct contrary, and muſt of courſe ſpeak from wider practice. They do not reſtrict the ſuppuration of the buboes to ſlight caſes, and I have myſelf ſeen many ſucceſsful caſes, wherein the ſymptoms were equally formidable as the preſent, or the other caſes produced by M. Chicoyneau, &c. ſo far at leaſt as I can judge from their narratives.

But, by their own accounts, did not their extirpation of the glands, &c. early in the diſeaſe, often prove unſucceſsful? And where it happened otherwiſe, may it not be aſked, did not their ſucceſs depend on that peculiarity of *diſpoſition*, or on chance, to which they ſo readily aſcribe the ſucceſs of other methods?

Obſ. 4. cl. iv.. This was a very ſlight caſe, and there appears no ground for thinking that the bubo would not have done very well had it been left to itſelf.

The firſt obſervation of M. Couzier, p. 383, furniſhes, in my opinion, a ſtrong inſtance of the impropriety of the early extirpation of the glands, which appears upon a peruſal of the caſe, to have been detrimental. The ſixth day a bubo was opened and a part of the glands removed, but there being no ſerous diſcharge from the wound for two or three days, it was repeatedly ſcarified in order to haſten ſuppuration. In ſeveral of the other caſes the operation ſeems to have been equally unneceſſary.

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But under the moſt thorough perſuaſion of this truth, I muſt at the ſame time repeat a former remark, that the numerous ſucceſsful caſes I had occaſion to obſerve, wherein the buboes had been left to open of themſelves, and were treated with ſuperficial dreſſings, compared with inſtances proportionally rare, of harm reſulting from the neglect of an inciſion, and the want of more ſkilful artiſts in the ſubſequent management of the ulcer, ſhowed ſufficiently the extenſive powers of nature when left uninterrupted to herſelf; and led me ſtrongly to ſuſpect, that ſurgery, like phyſic, has frequently arrogated merit in the plague, where, in regard to the ſick, her operations might have ſafely been diſpenſed with, and at the ſame time have ſaved the lives of many ſurgeons who have periſhed in the ſuperfluous exerciſe of their art[40].

Where the natural opening of the abſceſſes was not ſufficiently wide to give free diſcharge to the matter, and care was not taken

The obſervation of M. Geoffroy, p. 422, are twenty in number, and contain many curious chirurgical remarks, but none of them place early extirpation of the buboes in a favourable light. The third obſervation in particular deſerves attention.

His caſes are frequently defective in omitting the *dies morbi*; but in reſpect to the treatment of peſtilential ulcers, the reader will find many uſeful obſervations. He has rather intermingled too much theory with his narratives, which is the more to be regretted, that he was a bold and active operator. He very often found the glands in a gangrenous ſtate.

[40] " Sans le ſecours de cette ſcience (la medicine) & du grand art de la chirurgie, " les pauvres malades auroient été abandonnés aux ſoins de la nature ; ce qu'on na " pas vû, puiſque nous les avons aſſiſtés, & que nous en avons gueris pluſieurs qui " auroient été privés de ce ſecours, ſi la cour remplie de zéle, n'avoit envoye des " chirurgiens pour traiter ces pauvres malades, puis qu'une partie de ceux qui " etoient établis dans cette ville, avoit pris la fuite & n'a reparu qu'a la fin de la " maladie." Traité de la Peſte, p. 424.

I have already riſked an opinion, that, from M. Geoffroy's own repreſentation, many of the operations he performed might have been ſafely diſpenſed with: at the ſame time it would be very uncandid to deny, that in many inſtances, his treatment in the advanced ſtate of the buboes ſeems to have been judicious as well as ſucceſsful.

to

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to enlarge the aperture, troubleſome ſinuſes ſometimes formed, and the cure was protracted. I had occaſion to ſee ſeveral caſes of this kind, and ſuch were perhaps more frequent than to me they appeared to be, judging from my own experience; becauſe wherever more was required than ſimple ointments, which the patient could apply himſelf, my cuſtom was to refer the caſe to the profeſſed ſurgeons, hinting only what ſeemed neceſſary to be done. The uſual mode of dilitation was by ſponge tent or gentian root, for the natives dreaded cutting inſtruments, and were inexpert in the uſe of them.

The yellow baſilicon ſometimes, with a ſmall proportion of red precipitate, was the uſual dreſſing, and except ſome unfavourable diſpoſition in the habit happened to concur, the ulcers in general healed more kindly than the venereal. The parotids gave moſt trouble. What was termed the ſpurious bubo was treated in the ſame manner as the others.

The diſcuſſion of the buboes was entirely the work of nature, no external applications whatever having been employed for that purpoſe; and where the glands remained hard and indolent, the diſperſion of the ſwellings was for the moſt part committed to time. In a few caſes where theſe indolent tumors lingered beyond four or five months, mercurial ointment was rubbed on the part; but I had not ſufficient experience of that practice to ſatisfy myſelf of its effects[41]. I gave the cicuta in other inſtances, and I think with more ſenſible benefit. Thoſe lingering ſwellings of the glands ſeemed to depend more on idioſyncracy than on any thing peculiar in the original diſeaſe.

It is a remark of Timoni, that perſons recovered from the plague, whoſe buboes have diſperſed without coming to ſuppuration, were ſubject, in ſubſequent years, upon going into places

[41] See a remarkable caſe wherein repellants were uſed for a bubo. Traité de la Peſte, p. 452.

infected,

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infected, to feel obtuſe pains in the ſeat of their former ſwellings[42]. I never met with an inſtance of this kind; and, without altogether diſcrediting the fact, am inclined to ſuſpect, that a good deal in ſuch caſes may be referred to pure imagination[43].

The moſt part of the carbuncles which I had occaſion to ſee, healed with very little or no aſſiſtance from ſurgery. In ſituations which admitted of a retentive bandage, a pledget ſpread with baſilicon, and a little teribinthinate balſam of ſulphur mixed, was applied to the eruption, and over that a ſimple poultice. Where the black cruſt had not yet begun to form, the poultice only was applied, and was continued till the cruſt was nearly completed. In parts where the poultice could not conveniently be ſecured, the eruption was from time to time anointed with the oleum palmæ: adheſive plaſters of every kind were avoided till the inflammation had ceaſed or conſiderably abated; as they conſtantly before that period occaſioned much pain. Among the natives a common application was oil beat up with yolk of egg, ſpread on a plantane leaf[44].

Scarifications were never admitted in the carbuncles, for the ſame reaſon that cutting inſtruments were rejected in the buboes.

[42] "Multi per bubonis reſolutionem curati, annis ſubſequentibus ſi peſte infecta "loca petant, eo in loco dolorem obſcurum ſentiunt in quo bubonem habuerunt." Phil. Tranſ. Vol. XXXI.

[43] The pains felt in the groin, by thoſe communicating with the infected, and which are followed by no ſwelling, are I believe very often merely imaginary. I have myſelf, eſpecially when alone in the evening without ſociety, and fatigued by buſineſs, writing, and thinking on the ſame ſubject, been ſenſible of ſhooting pains in the groin; inſomuch, that I have ſeveral times gone to bed in the firm perſuaſion of having caught the infection, and on awaking the next morning, have hardly had reſolution to touch the part, from the dread of finding my ſuſpicions confirmed. But impreſſions of this kind vaniſhed when the ſpirits were recruited, and the attention engaged in the buſineſs of the day.

[44] Plantago.

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They might very poſſibly have haſtened the ſeparation of the cruſt or eſchar, but that circumſtance did not appear to be of material conſequence, and the patient eſcaped the additional pain of the operation, as well as that occaſioned by the ſharp topical remedies uſually employed to promote ſuppuration.

As to the expediency of ſcarification, and the ſtronger digeſtives, ſpirituous tinctures, &c. in the early ſtage of the diſeaſe, while formidable ſymptoms ſubſiſt and the eruption is in a ſpreading ſtate, I am ſtrongly inclined, after attentive peruſal of many caſes wherein that practice took place, to doubt it. But, in this, I wiſh to be underſtood as ſpeaking with diffidence; my own experience being here defective, and the practice of ſcarification having been ſo generally recommended by thoſe who diſapproved of the rough treatment of the buboes.[45]

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[45] Meſſrs. Moine and Bailly, after diſapproving of the extirpation of buboes, and recommending a milder treatment, think the caſe is different in reſpect to carbuncles, " Il n'en eſt pas de même des charbons, il faut dès les premier moment les ſcarifier; " y'ayant danger dans le retardement; nous avons vû de la largeur d'un denier, qui " dès les premier jour, pour n'avoir point été *ſcarifiés & enlevés*, occupoient le len- " demain la largeur de la paulme de la main." Traité de la Peſte, p. 365, 577.

M. Bertrand purſued the ſame method in reſpect to ſcarification, but applied alſo an anodyne poultice. p. 380.

M. Chicoyneau's method was nearly the ſame: " Nous attaquions d'abord toutes " ces eſpèces de charbons, par de ſcarifications, faiſant des taillades à droit & à gauche, " dans le milieu & ſur les bords, juſqu'au vif, & ſuppoſé que l'eſcarre fut épaiſſe & " calleuſe, on la cernoit, emportant tout l'épaiſſeur & calloſité, autant que la ſitua- " tion des parties pouvoit le permettre.

" Nous n'avons pas trouvé à propos d'uſer dans ce traitement des cauteres actuels " ou potentiels, que nous mettons en uſage dans notre provence, pours les charbons " ordinaires parcequ' les ayant employér dans le commencement, nous avons ob- " ſervé quils attiroient des inflammations ſi conſidérables, que la gangrene s'y mettoit " bientôt après, & que les bords ſe racorniſſoient. La pierre à cautere ne reuſſiſſoit " guéres que pour les petits charbons qui guériſſoient preſque ſans aucun ſecours." Traité de la Peſte, p. 239.

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The progreſs of the carbuncle, like that of the bubo, always appeared to me to be connected with the internal ſtate of the diſeaſe; it ſpread variouſly, more or leſs rapidly, but at a certain period ſtopped of itſelf. The black mortified cruſt, in like manner, caſt off faſter or ſlower; that of the ſmaller carbuncles very often without any topical remedies whatever, and in the others, under the ſimple ſuperficial dreſſings already deſcribed. It does not appear from the caſes I have conſulted that the moſt active ſurgery ever ſtopped the progreſſive ſpreading of the eruption, in the vigour of the diſeaſe, before a change favourable to that event had taken pace internally. Where ſcarification has been indiſcriminately practiſed, the ceaſing of the gangrene has generally been aſcribed to that and the topical remedies thus applied more effec-

The actual cautery is diſapproved of alſo by Foreſtus; but the external treatment being in the provence of ſurgery, he has little on the ſubject from his own experience.

Senertus approves of deep ſcarification, and hot ſtimulating topicals. Lib. iv cap. 6. de Febribus.

Hodges thinks the treatment of carbuncles muſt vary, and be more or leſs ſevere, according to circumſtances. In ſome caſes, not only deep ſcarifications, but the actual cautery are recommended from experience. Loimolog. p. 127.

M. Rochevalier at Marvejols, agrees with Meſſrs. Moine and Bailly. " Nous " faiſons d'abord emporté l'eſcare, & les bords calleux des charbons, puis on les " panſoit à l'ordinaire, & on les lavoit avec le vin tiéde. Les lavages animés les ra- " cornoiſſoient toujours extremement. L'extirpations des charbons nous a paru le " ſeul moyen d'arrêter les progreſs incroyables qu'ils faſoient en très peu de temps." Traité, &c. p. 601.

On the other hand Diemerbroeck is of opinion that the gentler the treatment of the carbuncle the better. Scarification propoſed by Rhazes, Oribaſius, Paulus, and many other writers, is condemned; and for the ſame reaſon bliſters, cauteries, and other cauſtic, ſharp applications are excluded. " In hac noſtra peſte, experientia " millies docuit hujuſmodi altas ſcarificationes et exciſiones infeliciſſime ceſſiſſe et " ſemper carbunculos qui mitius tractabantur multo melius et citius curatos fuiſſe." The uſual application, the firſt and ſecond day, was a red cabbage leaf with rape oil—ſometimes ſuppurative cataplaſms. The form of plaſter was leſs ſuitable. De Peſte, lib. iii. cap. 13.

tually;

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tually; but on comparing ſuch caſes with my own journals, where a different method was purſued, I find no ſufficient cauſe for altering my opinion, that ſcarifications were not univerſally neceſſary; that they often were ſuperfluous, and in ſome inſtances ſeem to have been prejudicial. I have already remarked, that I met with no carbuncles of that extraordinary ſize deſcribed by ſome authors[46]; ſuch may require extraordinary treatment; but I think it will appear from the caſes referred to, that operoſe ſurgery in reſpect to the carbuncle is ſeldom or ever requiſite in the dangerous ſtages of the plague, and has been employed with ſucceſs only where the infected were in a convaleſcent ſtate[47].

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[46] Traité de la Peſte, p. 283, 577.

[47] In the caſe narrated by M. Chicoyneau, Traité de la Peſte, p. 282. The carbuncle had ſpread to a very extraordinary ſize. It was the ſeventh day before any medical aſſiſtance was given, and there were, beſides the carbuncle, no formidable ſymptoms. The ſcarifications might probably be neceſſary in ſome degree here, but they certainly did not put a ſtop to the ſpreading of the gangrene, which does not ſeem to have ſtopped till the 11th or 12th.

In the caſe by M. Verny, Traité, p. 278, there were 12 carbuncles, moſt of them the ſize of a crown, and, what was uncommon, one was ſituated in the throat internally (dans le fond du Goſſier). Nothing whatever had been done the firſt five or ſix days, and the ſituation of the patient was ſuch that evacuations were judged improper. The eruptions were all ſcarified, and the glands of the buboes extirpated; a copious diſcharge of thin ſanies followed, and on the ninth day the moſt alarming ſymptoms diſappeared.

M. Verny affirms that the patient muſt infallibly have periſhed, had it not been for the chirurgical treatment of the eruptions, and the internal remedies judiciouſly adminiſtered, p. 291. But it may be remarked, that, cordials excepted, no internal remedies were given; and it may be doubted whether the ſuppuration, to which ſo much is aſcribed, was haſtened by the painful operations performed on the eruptions.

The reflexions ſubjoined to this caſe merit conſideration: but too much ſeems all along to be attributed to the external treatment of the eruptions, as if upon that alone their ſuppuration depended.

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The conſequence of carbuncles on the wriſt and other tendinous parts, proved ſometimes a lameneſs or contraction of the member, which very probably might have been prevented in ſome inſtances by ſkilful treatment; and in other parts the ſpeedier cure of ulcers might have been promoted by topicals, the application of which, in the earlier ſtages, would only have produced unneceſſary, if not prejudicial irritation.

I beg leave to repeat, that it is with diffidence I have ventured my ſentiments on this ſubject, and with due deference to the opinion of thoſe more verſed in modern ſurgery, who may happen to differ from me.

Diemer-

Of twelve caſes narrated by M. Couzier, (Traité, &c. p. 383) in three only carbuncles are mentioned, Obſ. 9, 10, 11. p. 393, and in all the eruptions did very well without ſcarification.

The ſame author, p. 397, gives a caſe where a cauſtic was applied the ſecond day, to a carbuncle on the upper lip, and appears to have done harm, by unneceſſary irritation; though the ſubſequent ſwelling of the face ought not to be ſolely imputed to that, as the ſwelling, &c. always attended in ſome degree in the natural courſe of the carbuncle in that ſituation.

M. Geoffroy makes a diſtinction between the carbuncle and the anthrax, though, in the plague, the latter ſeems to be merely a different ſtage of the ſame eruption.

His mode of treatment was ſomewhat different from that of the other ſurgeons, for he mixed a little ſublimate with the baſilicon, and thought it leſs apt to raiſe inflammation than the other cauſtic applications. Traité, &c. p. 436.

Obſ. 3d, p. 441. The carbuncles were ſcarified, and the ſublimate ointment applied the ſecond day, but the ſuppuration did not come on earlier than the uſual period, nor till the diſeaſe had taken a favourable turn. The fever diſappeared the ſeventh. There is reaſon for thinking that this caſe from the beginning was not dangerous, and that the delirium, &c. were increaſed by the treatment of the eruptions.

Obſ. 9th. A ſmall carbuncle was unneceſſarily ſcarified, and the eſcharotic applied the ſecond day. The eruption, as uſual, ſpread; and the patient died the fourth. The imprudent uſe of cordials was here ſuſpected of augmenting the internal heat.

Obſ.

CHAP. V.

Diemerbroeck makes mention of carbuncles attended with no ſymptoms of internal diſorder, and which appear to be merely local, produced by external contact, without affecting the habit. I have obſerved a few inſtances ſeemingly of this kind. One particularly where a woman ſuckling a child of a few months old, who had a carbuncle on the cheek, got a ſmall carbuncle on the breaſt. She had no other ſigns of infection, and the carbuncle paſſing through its uſual ſtages, healed favourably. The child died the fourth or fifth day.

Whether the lymphatic glands may not in like manner, with the ſkin, be ſometimes locally affected, without affecting the habit, I ſhall not preſume to determine. The ſuppoſition is probable from analogy; but the ſigns of an uninfected habit are too equivocal to juſtify any variation in the uſual treatment of either buboes or carbuncles.

I was told that ſome of the Turkiſh ſurgeons applied the cautery to ſmall carbuncles, with ill ſucceſs; others uſed the vitriolic cauſtics. I ſaw a few inſtances of the latter practice, and it ſeemed to have done harm.

Obſ. 16th. p. 457. A very unneceſſary ſcarification of a ſmall carbuncle was followed by an hemorrhage, and the patient died. The repeated bleeding and whole treatment of this caſe was very extraordinary, and the ſurgeon's doubts about bleeding were well founded.

Obſ. 19th. In this caſe there were five carbuncles, all were ſcarified, and the eſcharotic ointment applied; but no ſuppuration took place, nor indeed was there time for it, the patient dying the third day after the operation. It does not appear what day of the diſeaſe.

CHAP. VI.

Of Reinfection[1] *and Relapſe.*

IN the plague, contrary to what happens in the ſmall-pox, perſons are liable to be infected more than once; not only at long intervals, and in different climates, but in the ſame town, in the courſe of the ſame peſtilential ſeaſon. This fact, which has been doubted formerly by ſome phyſicians, and by others expreſsly contradicted, has been long eſtabliſhed upon the beſt authorities[2].

That inſtances, however, of ſecond infection are proportionally met with very ſeldom, may be inferred from their being wholly unnoticed by ſeveral practitioners, to whom an omiſſion of ſuch conſequence to the hiſtory of the diſeaſe, can hardly be imputed;

[1] I have adopted, perhaps without ſufficient authority, the term reinfection, in contradiſtinction to relapſe, for reaſons to be given hereafter.

[2] M. Samoilowitz is one of the laſt writers who oppoſes the commonly received opinion, and, having propoſed inoculation of the plague, contends ſtrenuouſly, that the diſeaſe does not attack the ſame perſon twice in the ſame ſeaſon. He met with no inſtance of it in Ruſſia, in 1771; and gives an example of eighty perſons employed under him in a peſtilential hoſpital, in attendance upon the infected, and who were lately only recovered from the plague, all remaining unhurt, though hourly expoſed in the moſt dangerous ſituation. He conceives Mertens (who alſo gives an account of the plague at Moſcow, in 1771) to have been miſtaken or miſinformed, when he aſſerts, (p. 123. Obſerv. Med.) "experientia comprobatum ſit, hanc (peſtem) illos non ſolum in variis vitæ periodis, ſed et in eadem epidemia, bis, aut ſæpius occupare poſſe."

Though Mertens produces no particular inſtance from his own experience, he had ſufficient grounds for his aſſertion; and his opinion is confirmed by Orraeus, who writes from very extenſive experience in Ruſſia, in 1770 and 1771, and had met with ſeveral inſtances of reinfection. "Peſtem etiam repetitis vicibus in uno eodemque ſubjecto, recurrere, *ſæpiuſcule* obſervatum fuit." Deſcriptio Peſtis, in Jeſſia et Moſcua, ann. 1770 and 1771. Petropol. 1784.

as

as well as from the popular opinion which prevails ſo univerſally, that a perſon once recovered from the plague is ſecure, at leaſt in the ſame ſeaſon, from being infected a ſecond time. CHAP. VI.

This popular error, which in as much as it encourages thoſe who have once eſcaped with life, to expoſe themſelves more freely in the attendance on others, may be ſaid to have its uſe, is found to maintain its ground in countries where the frequent recurrence of the plague might be expected to have furniſhed proof ſufficient to have long ago exploded it. But the opinion is common in the Levant; and ſo many who thus expoſe themſelves remain unhurt, that a few inſtances to the contrary are ſoon forgotten. In Europe the popular prejudice is likewiſe predominant, and the perſons devoted to the moſt dangerous offices, are choſen in preference by the magiſtrates of the police, from among thoſe who have already had the diſtemper [3].

It ſtands recorded by Thucidydes, that in the plague of Athens, "thoſe who were recovered had much compaſſion on thoſe that "were dying, and on thoſe who lay ſick, as having known the "miſery themſelves, and were now in a ſecure and ſafe ſituation, "for it never ſeized the ſame perſon twice *ſo as to be mortal*[4].

Alexander Maſſaria has been repreſented by Senertus [5] and Diemerbroeck [6], as adopting an opinion that the plague never attacks the ſame perſon twice; though from what the author

[3] "Chaque brigade avoit des hommes de travail que l'on choiſit parmi eux qui "avoient eu le mal—& le linge leſſivé par des perſonnes echappéee du mal." Relat. Hiſt. p. 438, 440. See alſo Traité, p. ii. p. 147, 260.

[4] Επιπλεον δὲ ὅμως οἱ διαπεφευγότες τὸν τε θνησκοντα καὶ τὸν πόνεμενον ωκτίζοντο, δια τὸ προειδέναι τε καὶ αὐτοι ἤδη ἐν τῷ θαρσαλέῳ ειναί, δὶς γὰρ τὸν αὐτὸν ποτε καὶ κτέινειν, ικ ἐπελάμβανε. Thucydid. de Bello Peloponeſ. lib. ii. See Fabius Paulinus Prelectiones Marciæ, lib. ii. p. 485.

[5] De Febribus, lib. iv. cap. 4.

[6] De Peſte, lib. iv. Hiſt. 37.

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himſelf ſays on the ſubject, it clearly appears that his own experience, at Vicenza, had taught him the contrary: and he not only cites Thucidydes with more accuracy than ſome others have done, but corrects a miſtake in reſpect to ſecond infection never proving fatal. In accounting for thoſe ſo often eſcaping unhurt, who are employed in burying the dead, he aſcribes it chiefly to their having had the diſtemper before. "Hujus rei cauſæ cum aliæ ab aliis "afferantur, certiorem illam et veriorem cæteris eſſe nos exiſti- "mamus, quod ei plerique altera peſtilentia laboraverint, ſicuti "communi fere omnium conſenſione, longiorique experientia "jamdiu confirmatum eſſe videtur, ut nemo bis peſtilenti morbo "*male inficiatur:* quod privatim annotavit Thucidydes, qui hoc "in primis nomine quicunque evaſerunt beatos ab aliis eſtimatos "fuiſſe tradit, ac ſi illi nulli amplius mortis periculo eſſent ob- "noxii: quod quidem privilegium quanquam majori exparte ve- "rum, neque prorſus a ratione alienum eſſe nos arbitramur, illud "tamen quod apud nos res ipſa monſtravit, haud perpetuo verum "eſſe, et quandoque fallere cenſendum eſt.[6]

The opinion therefore adopted by Maſſaria was, that thoſe who had once had the diſtemper are much leſs liable than others to contract it again, but are not altogether exempt, and may even ſuffer mortally in a ſecond attact: in which he concurs with moſt of the practitioners who have explicitly mentioned the ſubject.

Mercurialis[7] and Van Helmont[8] both agree, that perſons are very ſeldom attacked twice by the plague. In above one hundred and twenty peſtilential hiſtories recorded by Diemerbroeck, I find two only of perſons infected twice in the ſame ſeaſon; but he had met

[6] Maſſariæ, Tract. I. de Peſte. Oper. Lugd. 1669, p. 509.

[7] Præterea idem contingit in magnis peſtilentiis quod in illis qui ſemel paſſi ſunt peſtem, ut de ſua retulit Thucidydes, et qui ſemel paſſi ſunt quartanam, quos experientia comprobatum eſt, non ita cito, aut nunquam illis tentari. Mercurialis, de Peſte, c. xix.

[8] "Quare qui a peſte ſurrexerunt, eodem anno vix æque facile a peſte inquinantur." Van Helm. Tumul. Peſte, p. 173.

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with ſeveral inſtances of perſons attacked at Nimeguen, who had ſuffered the plague ſome years before.[9] The Auguſtin Friar, who gives an account of the plague at Genoa in 1657, admits the poſſibility of re-infection, but aſſerts that it happens very rarely. In the multitude of ſick he had occaſion to ſee, he only met with three or four inſtances. But he remarks, that relapſes, or perſons falling ill again before perfect recovery, were often repreſented as being a ſecond time infected with the plague.[10]

Timoni declares inſtances of ſecond infection, in the ſame year, to be very extraordinary at Conſtantinople.[11] M. Chicoyneau gives the hiſtory of a young lady, who died in forty-eight hours of a ſecond attack of the plague, and conſiders the caſe as remarkable.[12] In a number of peſtilential caſes collected in the Traité de la Peſte, I find four or five only of re-infection,[13] and one of them ſeems to be improperly ſo termed.[14] M. Bertrand, at Marſeilles, ſuffered three attacks of the plague, or rather relapſed twice; for all the three happened within the ſpace of four or five weeks.[15]

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[9] Diemerbroeck de Peſte, lib. iv. hiſt. 37 and 45.

[10] Li Lazaretti de la citta et riviera de Genoua. P. Antero Mariadi S. Bona ventura Agoſtiano. p. 299. The father, after mentioning a few inſtances of re-infection he himſelf had ſeen, adds, "e benche cio ſia ſeguito, e per conſequenza niuno debba ri-" putarlo impoſſibile, pure deve anche riputarſi caſo raro e difficiliſſimo da ſuccedere; " mentre tra tante centanaia, anzi migliaia di riſinati ſolo queſti tre, ch'io ſappia, " repigliarono il male.

[11] " Pro monſtro habetur ſi quis a peſte perfecte ſanatus, eodem anno peſte corri-" piatur." Philoſ. Tranſ. Vol. XXXI.

[12] Traité de la Peſte, p. 322.

[13] Traité de la Peſte, p. 395, 594, 514.

[14] Ibid. p. 395.

[15] " C'eſt une opinion aſſez commune parmi les peuple, qu'on ne peut pas pren-" dre deux fois de ſuite cette maladie. C'eſt dans cette confiance que ceux qui en ont " été guéries, ſe livrent plus facilement au ſervice des autres malades, & par-là cette " fauſſe créance à ſon utilité: cependant cette opinion eſt fauſſe, & on a vû la con-" trairé dans cette conjoncture. J'en ai fait moimême une triſte experience." Traité de la Peſte, p. 381.

Thus far M. Bertrand himſelf, but the hiſtorical relation gives a more particular account of the matter, (Relat. Hiſt. p. 209) and from that I think it may be inferred, he rather ſuffered relapſes than repeated infections.

M. Sa-

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It may be remarked, in general, of the French phyſicians in the year 1720, that they frequently uſed the words relapſe and ſecond attack as ſynonymous; a circumſtance which, if not attended to, ſometimes renders their meaning obſcure. Thus M. Chicoyneau terms the caſe of the young lady, "Une nouvelle attaque, une "rechute, une ſeconde attaque de peſte;" and in deſcribing the ſubjects moſt liable to ſecond attacks, he ſeems rather to refer to relapſe, than to the attack of the diſorder a ſecond time after the patient had been perfectly recovered.[16] In like manner the hiſtorical Relation of the Plague, at Marſeilles, often uſes the term relapſe, where ſecond infection is certainly to be underſtood;[17] for that

M. Samoilowitz alſo ſuffered three different attacks, that is, he relapſed twice; for by his own account, the firſt bubo having diſperſed, the peſtilential virus, received by the firſt infection, ſtill remained in the habit. Lettre a l'Académie de Dijon, p. 57.

If the ſecond and third attacks were not conſequences of the firſt infection, they muſt be aſcribed to infection contracted afterwards in a communication with the ſick, in which caſe it muſt be ſuppoſed, contrary to the common opinion, that a perſon already infected, who continues among the ſick, is ſuſceptible of ſuper-added infection. If this be not ſuppoſed, I do not ſee why M. Samoilowitz ſhould have been more liable to a fourth attack, by continuing to expoſe himſelf, than if he had never been infected before. "Si je fuſſe encore reſté dans les hopitaux, ſans doute la peſte "eût pu me livrer un quatrième aſſaut." He had before remarked, that unleſs the virus was expelled either by the ſuppuration of a bubo, or a total ſeparation of a carbuncle, there was danger of a relapſe: "d'autant que le venin de la contagion reſtait "dans ſon corps, p. 59.

[16] "Le ſecond fait, qui mérite quelque attention, eſt la rechute ou la ſeconde atta-"que de peſte——Ce fait détruit le préjugé vulgaire, que les perſonnes qui ont eu une "fois la peſte, ne l'ont pas une ſeconde; ce que nous pourrions encore mieux dé-"truire par une bon nombre d'autre obſervations faites dans le cours du traitement de "cette peſte, par leſquelles il conſte que les perſonnes qui dans le tems d'une premiere "attaque n'ont pas eté bien vuidées, ou nettoyées par quelque voie que ce puiſſe être, "ou qu'après l'avoir eſſuyée, ne ſe ſont pas bien ménagées, en ont éprouvé une ſe-"conde ordinairement plus rude que la premier. On pourroit même en citer qui "ont eu juſqu'a trois attaques de peſte." Traité de la Peſte, p. 341.

[17] "Tout ce que fit la nouvelle ſaiſon, ce fût de nous donner des malades peſti-"ferés d'une eſpèce nouvelle, je veux dire les rechutes; on étoit déjà revenue de "cette

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that ſurely cannot properly be called a relapſe which does not make its appearance till long after the patient had been cured of the firſt attack, " long tems après que la malade avoit été guéri " du premier mal."

A memoir on the ſubject of relapſes, which are repreſented as having been common in the latter period of the plague, at Marſeilles, gave occaſion to a conſultation of the phyſicians and ſurgeons in that city; at which M. Deidier preſided; and it is remarkable that the opinion almoſt unanimouſly adopted by the aſſembly is, in ſome reſpects, directly oppoſite to that of M. Chicoyneau, as it is in all to what is contended for by the Author of the Memoir. This paper, as well as the conſequent conſultation, being on ſeveral accounts intereſting, the principal articles, of both, are tranſcribed below.[13]

In

" cette prévention que le mal ne pouvoit ſe prendre qu'une ſeul fois; car on avoit vû " quelques rechûtes dans le cours, dans le fort même de la maladie: quelques uns " étoient venuës des que le malade avoit été guéri du premier mal, & d'autres long " tems après, par des excès qu'il avoit fait; mais les exemples en étoient ſi rares, " qu'on les auroit aiſément comptés. Elles furent plus fréquentes dans la ſuite ces " rechûtes, & ſur tout dans le mois de Mars.

" Dans le fort du mal, mais ſur-tout ſur le fin du ſecond période, & pendant le " troiſième, pluſieurs avoient eu le mal benin & des éruptions ſi favorables, qu'elle " n'avoient donné aucune ſuppuration, ce qui doit s'entendre principalement des bu- " bons, qui diſparroiſſoient en peu de jours, & ſe terminoit par une heureuſe reſolu- " tion, ſans aucun ſymptome fâcheux pour le malade. Pluſieurs de ceux la eſſuye- " rent dans le printems une nouvelle atteinte de mal, ſoit par la revolution que la " nouvelle ſaiſon faiſoit dans les humeurs, ſoit par d'autres raiſons que nous laiſſons " aux medecins a déduire." Relat. Hiſtor. de la Peſte de Marſeille, p. 458.

[13] They are to be found in the Traité de la Peſte, p. 529; and a more particular account of the occaſion of the conſultation, in the Relation Hiſtorique, &c. p. 459.

Mémoire touchant les rechûtes qui peuvent perpétuer la contagion.

Trois ſortes de malades peuvent tomber en rechûtes.

I. Ceux à qui il eſt reſté de fiſtules enſuite des bubons mal panſés. Tant que ces fiſtules fluent, elles ſont à craindre, ſur-tout ſi elles viennent a ſe boucher ſans avoir été mondifiées, l'humeur arrêtée peut fermenter de nouveau & refluant dans le ſang,

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In the Memoir ſubmitted to the deliberation of the phyſicians and ſurgeons, the author ſuppoſes the patient not yet completely free from the diſeaſe, though the fever and ſome other ſymptoms may have ceaſed; that the infectious principle remains latent and inactive, but may, by exceſſes, be again excited and produce a diſeaſe contagious like the firſt: the patient, in the interval, being ſuppoſed not in a ſtate capable of communicating the plague to others, though he becomes ſo after the reſuſcitation of the peſtilential ſymptoms.

That the diſeaſe thus revived, in as much as it proceeds entirely from the firſt infection, is properly termed a relapſe, will readily be granted; but when it is declared, in anſwer, that ſuch perſons are leſs ſuſceptible of the diſeaſe than thoſe are who had already ſuffered it, the general poſition applies rather to ſecond infection than to relapſe; for it never was contended, that a perſon not yet recovered from the plague, is not ſubject to relapſe.

Of all controverſy, that merely concerning words is in general the moſt frivolous; but in the preſent caſe it becomes of importance to adhere ſtrictly to the proper ſenſe of relapſe, in order to diſtinguiſh diſeaſe produced by firſt infection, at whatever period it happens, and what ariſes after the patient's recovery, from infection newly contracted. " Ce que l'on doit propre-

y'allumer une fiévre qui, venant du même principe pourroit redonner la même maladie, qui pour lors ſeroit véritablement contagieuſe.

II. Ceux dont les bubons n'ont ſuppuré qu'imparfaitement, dont les glandes n'ont pas été conſommées par la ſuppuration. En ceux-la le moindre excès peut mettre l'humeur & le principe contagieux, qui eſt encore dans la glande, en mouvement, le communiquer au ſang, & rallumer ainſi la fiévre peſtilentielle, dont les ſuites ne ſont pas moins à craindre que celles de la première.

III. Ceux dont les bubons, n'ont point du tout ſuppuré. Si ceux la n'ont point pris la précaution de ſe purger au moins deux ou trois fois, il eſt conſtant qu'ils ont encore la vice de la contagion dans le corps, lequel ému par le moindre excès peut leur redonner la même maladie auſſi contagieuſe qu'paravant.

" ment

" ment apeller rechûte, eſt la ſuite d'un mal qui na pas été bien " guéri, & qui ſe renouvelle par un reſte de malignité que les " remedes, les précautions, & le temps n'ont pas entièrement " détruit."[19] This definition, which I have on purpoſe ſelected from the French, ſufficiently diſtinguiſhes relapſe, from what I all along underſtand by repeated attacks of the plague, or *re-infection*.

The reſult of the conſultation was, that none of the caſes ſtated in the Memoir were of a nature to raiſe any apprehenſion; becauſe all the ſubjects having already had the diſeaſe, were much leſs liable to have it again; and could not communicate it to others.

" Il a été unaniment délibéré—que les trois ſortes des malades " propoſeés dans le mémoire, ayant déjà eu la peſte, étoient beau- " coup moins ſuſceptibles de la reprendre, que ceux qui n'en " avoient pas été attaquées; & qu'on ne devoit aucunement ap- " préhender que la maladie ſe renouvellât chez eux, ni qu'ils " puſſent la tranſmettre en communiquant avec autrui.[20]

It might reaſonably have been expected that ſo decided an opinion, in contradiction to what was partly alleged as matter of experience,[21] would have been ſupported by a detection of facts, by oppoſite obſervations, or by direct experiment; but nothing more is produced than ſimple affirmation, and ſome theoretical arguments on the nature of ferments. The deciſion makes no diſtinction between ulcers of ſhort or long ſtanding, but pronounces the matter of all indiſcriminately devoid of any contagious property: yet the practice of extirpating or conſuming the buboes, which

[19] Traité de la Peſte, par. ii. p. 235.

[20] Ibid. p. 530.

[21] " Un des chirurgiens de la marine repreſenta que pluſieurs femme dès gens de " ces équipages (des galeres) n'ayant eu qu'un mal leger, pourroient facilement le " reprendre & le communiquer à leur mari & que l'on commençoit à voir en ville " quelques-uns de ces malades par rechûte." Relat. Hiſtorique, p. 459.

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had been countenanced by the conſulting phyſicians, ſeemed to imply that they once thought the buboes the receptacles of the peſtilential virus; and if ſo, it became conſiſtently requiſite to ſhow at what period the matter iſſuing from them loſt its contagious power. M. Deidier, indeed, entertained a ſingular notion that the matter of the peſtilential bubo was at no time whatever contagious, the diſeaſe being communicable only by means of the bile; but this opinion, purely hypothetical, was not likely to influence the other gentlemen concerned in the conſultation.[22]

The deciſion on the firſt two articles of the Memoir is totally unſupported by facts,[23] and, in reſpect to the firſt, is defective in point of preciſion, for M. Deidier himſelf, in an account he gives of the reſult of the conſultation, ſeems to allow the pus of the peſtilential eruptions to be, in a certain degree, contagious, or at leaſt that it contains a portion of the peſtilential poiſon, which it loſes in a ſhort while. His words are, " J'ai conſtamment obſervé " que lorſque les éruptions de la peſte viennent à ſuppurer, les " malades ſont ordinairement hors de tout danger. Leur pus ne " renferme aucun venin peſtilentiel qui ne ſoit bientôt detruit, " comme vous le dites Monſieur, & nous l'avions jugé de même " à Marſeille en corps de faculté aſſemblée."[24]

[22] M. Deidier made ſeveral experiments with bile taken from perſons who had died of the plague, from which it appeared that the diſtemper was communicated to dogs by injecting bile into the veins, or applying it to freſh wounds; and that bile taken from a dog ſo infected, communicated, in like manner, the plague to another dog. See Traité de la Peſte, p. 202, 502, &c.

[23] Deliberation ſur le mémoire.

I. " Les fiſtules qui ſuccedent aux bubons peſtilentielles mal panſés, doivent être " regardées comme toutes les autres fiſtules, qui peuvent épuiſer le malade par le long " écoulement des matieres, ou produire une fiévre lente par le retour du pus dans le " ſang; mais ce pus n'eſt point du tout capable de produire la peſte."

II. " Ceux dont les bubons n'ont ſuppuré qu'imparfaitement, & dont les glandes " n'ont point été conſommées par la ſuppuration, ne peuvent tout au plus que tomber " dans les cas precedens; ils deviendroient fiſtuleux ſans être attaqués de la peſte." Traité de la Peſte, p. 530.

[24] Ibid. p. 519.

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The deciſion on the third article of the Memoir ſeems juſt, and agreeable to experience;[25] and it appears very improbable, on the ſuppoſition of any infectious principle lurking in the habit, that the purgation propoſed for expelling it would have been ſucceſsful.

Upon the whole, it may be remarked, that an indiſcriminate application of the terms relapſe and re-infection, by confounding two accidents in themſelves materially different, leads to an erroneous notion of repeated attacks of the plague happening much more frequently than they are found to do in reality. The deſcription of the latter period of the plague, at Marſeilles, in the ſpring of the year 1721,[26] furniſhes inſtructive proof of this fact, which in its influence on the apprehenſions of mankind, as well as on the adminiſtration of the police, comes to be in ſeveral reſpects of important conſequence.

Under the appellation of re-infection, or freſh attack of the plague, are here comprehended thoſe caſes only wherein the patient had been, to all appearance, perfectly recovered from the firſt; and where the ſymptoms of the ſecond diſeaſe ſeemed as manifeſtly to proceed from recent infection, as thoſe which had attended the firſt. I met with no inſtances of this kind unaccompanied by buboes or carbuncles, but have no doubt of ſuch happening, in the ſame manner as in caſes belonging to the firſt claſs of primary infections.[27]

[25] III. Ceux dont les bubons n'ont pas ſuppuré, quoiqu'ils n'ayent pas pris la précaution de ſe purger, ne doivent pas craindre le retour du mal dont le levain s'eſt entiérement briſés & diſſipé par la tranſpiration, par les ſueurs ou par les urines; ainſi ces derniers doivent être moins ſuſpectes que les précédens. Traité, p. 580

[26] Relat. Hiſtor. p. 458.

[27] In the caſe of Mademoiſelle Kilby, narrated by M. Chicoyneau, no eruption appeared except a ſmall carbuncle which came out half an hour before her death; but the body being opened, the diſtemper was found to have made dreadful progreſs internally. Traité de la Peſte, p. 340

It

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It appears from my journals and memoranda, that in four thouſand, four hundred peſtilential caſes, I met only with twenty-eight of re-infection, well aſcertained: a proportion much under what I expected, and which may account for ſome practitioners not having met with them at all. I had occaſion to ſee none myſelf who ſuffered more than two attacks; but have been credibly informed of perſons having ſuffered three and even four. Re-infections were always regarded as remarkably uncommon; but ſuch repeated attacks as very extraordinary: and I ſuſpected that acceſſory eruptions in a late ſtage of the diſeaſe were ſometimes miſtaken for the ſigns of recent infection.

The twenty-eight caſes above-mentioned, are to be underſtood with a reſtriction to perſons who had ſuffered the plague before, ſometime in the period commencing in the year 1760; for though the queſtion was generally put to all of a certain age, whether they had ever in their lives been infected formerly, I found it impoſſible to attain ſatisfactory information, ſo far back even as the year of the preceding plague in 1742. Some were at that time too young to remember whether they had had the plague or not; the accounts of others, who ſaid they had, were for the moſt part too vague to be depended on: of the proportion, therefore, of ſuch as ſuffered the diſeaſe then, and were now again infected, I can ſay nothing with certainty, but conjecture it to have been very inconſiderable.

The caſes marked below have been ſelected from the journals as inſtances of re-infection.[28] In four of them the buboes in the firſt attack had diſperſed; in the other ſix there had been a diſcharge from the eruptions. Of the other eighteen ſome, as being ſimilar, have been omitted as ſuperfluous, and ſome, on account of the hiſtories of the firſt attack being ſtill more imperfect than thoſe I have produced. In theſe, like the others, the buboes, in a majority of caſes, had ſuppurated; and of the whole twenty-eight, not more than ſix or ſeven terminated fatally.

[28] Caſe CXI. CXII. CXIII. CXV. CXVI. CXVII. CXIIIXIX. XX.

The

The want of a greater number of cafes of re-infection, lefs defective in the narrative, and in which an accurate defcription of circumftances, in both attacks, might probably lead to ufeful deductions, may be reckoned among the defiderata in the Hiftory of the Plague. But the collecting of fuch cafes is attended with peculiar difficulty; both on account of their rare occurrence, and the chance of the phyfician not having an opportunity of feeing the patient in the firft attack. Thofe that accident has put in my power of communicating, do little more than intimate the proportion in which fecond attacks were met with, leaving the real proportion to be more accurately determined by future experience: in like manner, though the patients, whofe buboes had difperfed, appeared not more liable to be attacked again than where there had been a copious difcharge from the eruptions in the firft attack; the confirmation of the fact depends on a greater number of obfervations.

The diftinction eftablifhed between relapfe and re-infection, however clear to the intellect, is not always, in practice, of fuch eafy application to particular cafes.

In giving the defcription of peftilential eruptions, it was faid, that where more than one were found in the fame fubject, they did not all make their appearance at once, but at uncertain periods, fucceffively: the carbuncles having been obferved no later than the 18th day, but the buboes fo late even as the 24th and 28th.[29]

The appearance of acceffory eruptions in the firft or fecond week, or where there was a continuation of peftilential fymptoms, occafioned no difficulty, being without hefitation referred to the firft infection: nor were they reckoned of an ambiguous kind where they appeared later, any time within the month, while the firft eruptions were yet in a progreffive ftate, or the ulcers ftill remained open. But where the peftilential fymptoms had difappeared in

[29] See Chap. IV.

the

BOOK II.

the firſt or ſecond week; where the firſt buboes had diſperſed, or the carbuncles were healed, and the patient had been for ſome days in a convaleſcent ſtate; the eruptions protruded, in the third or fourth week, were under ſuch circumſtances conſidered as ambiguous; it being no eaſy matter to determine whether they were to be referred to a reſuſcitation of the latent virus, or to infection newly contracted. On the firſt ſuppoſition, the caſe was clearly a relapſe; on the ſecond, a freſh attack, or re-infection.

The acceſſory eruptions, in relapſes, were ſometimes preceded by febrile exacerbations, but not conſtantly; and even in firſt infection the eruptions were ſometimes preceded by little or no ſenſible diſorder. From that circumſtance alone, therefore, nothing could be concluded with certainty. In general, however, the exacerbations preceding eruptions in relapſe, were ſeldom accompanied with ſymptoms ſo alarming as in real infection; and no inſtances were met with of relapſes terminating fatally. In re-infection, the ſymptoms preceding the eruptions were leſs ambiguouſly peſtilential, the diſtemper advanced more rapidly, and ſometimes terminated in death. Slighter caſes of re-infection reſembled thoſe of firſt infection belonging to the fifth claſs.

That the eruption of acceſſory buboes was ſometimes preceded by an exacerbation of ſymptoms, ſometimes not, will appear from ſeveral of the hiſtories marked below,[30] none of which were reckoned ambiguous. But the caſe of the woman, where the bubo had diſperſed, and a new one appeared in the ſame place on the 40th day, without any viſible diſorder preceding,[31] may, perhaps, be reckoned more doubtful. Some doubt alſo may ariſe about the caſe of the Jewiſh girl, where a parotis appeared on the 30th day.[32] Both however, for reaſons ſubjoined by way of remark to theſe caſes, have been reckoned re-infections.

[30] Caſe LXXV. CIII. CVIII. CIX. CX.

[31] Caſe CXI.

[32] Caſe CXIII.

All

CHAP. VI.

All the caſes deemed relapſes, which fell under my obſervation, were characteriſed by freſh eruptions; for though a patient in a ſtate of convaleſcence, might, in the ſecond or third week be ſeized with a vomitting, diarrhœa, or febrile exacerbations, yet theſe accidents being common to convaleſcents from ordinary diſeaſes, he was not, though reduced to a worſe condition than before, always conſidered as ſuffering a peſtilential relapſe; the ſymptoms did not aſſume that type, and ſeldom or ever were alarming. If, however, the term relapſe be extended to theſe caſes, ſuch were not uncommon: whereas the others were not met with in a much larger proportion than ſecond attacks of the plague.

When I ſay this, I ſpeak only from what I had occaſion to ſee myſelf; and am aware that it does not agree with an obſervation, formerly mentioned, of a phyſician at Conſtantinople, whoſe authority I reſpect;[33] nor with a remark I recollect the having heard in converſation at Smyrna, that convaleſcents from the plague, who did not obſerve a ſtrict regimen for thirty or forty days, were in danger of relapſing.

To an opinion nearly of the ſame kind, at Aleppo, is owing the cuſtom of carrying thoſe recovered from the plague to the bagnio, at the expiration of forty days; after which they are conſidered at liberty to return to their ordinary manner of living. But, though that term is generally deemed the moſt proper for going to the bagnio, convaleſcents very often go thither within the month; and as to regimen, it is often violated as ſoon as the patient is able to walk about. I have known many hundred inſtances of convaleſcents who, regardleſs of the ſtate of their eruptions and in ſpite of all admonition, have in the third week thrown aſide all reſtraint, abſtaining neither from animal food, crude fruits, nor ſpirituous liquors.

[33] Timoni.

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The common conſequence of ſuch exceſſes were ordinary diſorders in the bowels; but as before remarked, ſymptoms in a ſtrict ſenſe peſtilential were ſeldom obſerved to follow. Relapſes, diſtinguiſhed by new eruptions, were met with ſo rarely, and happened ſo indifferently in caſes where no exceſſes whatever had been committed, that they ſeemed rather imputable either to peculiarity of conſtitution, or of the diſeaſe; for had intemperance, without the concurrence of other cauſes, been ſufficient to produce relapſes, inſtead of their being met with ſeldom, they would have been no leſs common than the irregularities ſuppoſed adequate to their production.

It may be remarked further, in reſpect to the bagnio, that in four of the caſes of re-infections, the patients were taken ill immediately after their return from it. The ſudden appearance of peſtilential ſymptoms, in theſe inſtances, might have left room to ſuſpect their proceeding from a reſuſcitation of the former diſeaſe, rather than from recent infection; had not many inſtances concurred at the ſame time, of perſons in perfect health before, ſeized no leſs ſuddenly, either whilſt in the hot room of the bagnio, or within a few hours after. Towards the end of July 1762, I had occaſion, in one day, to ſee no leſs than ſeven patients who had been taken ill in that manner; ſome of whom had been ſhut up in their houſes for two months preceding, but relying on the common report of all danger being over, had imprudently ventured abroad from their confinement.

The promiſcuous concourſe at the bagnio, rendered it at all times of the peſtilential ſeaſon, a very dangerous place, but more eſpecially towards its decline; when not only convaleſcents, but their attendants and other perſons from infected houſes, uſed to flock thither. However obvious the propriety of abſtaining a month or two longer, from ſuch hazardous intercourſe, the impatience of numbers was not to be controlled, and the large proportion who eſcaped harm, compared with thoſe who ſuffered for their

their temerity, was conſidered as a proof of the plague drawing towards its termination. It ſhould, however, be remarked, that inſtances of perſons attacked, for the firſt time, at this period, greatly exceeded thoſe of convaleſcents attacked a ſecond, a circumſtance in confirmation of their being leſs liable to contract the diſtemper again: and from perſons of both deſcriptions, being at that period actually infected, it ſufficiently appeared, in contradiction to the vulgar opinion at the time, that the plague had as yet not loſt its contagious property.

In what time after its reception, the peſtilential virus begins to diſcover itſelf, is a point of difficult diſcuſſion. The period, from unknown cauſes, varies in different ſubjects; but its effects, in ſome inſtances, ſeem to be almoſt inſtantaneous: or, at leaſt, become perceptible in a few hours. I venture to aſſert this from the having known perſons who had long been ſhut up, taken ill almoſt immediately, or in a day or two, after their coming out from confinement.

M. Bertrand places the extreme term at thirty-five days, beyond which no inſtance was obſerved at Marſeilles.[34] In thoſe at Aleppo, who were taken ill after their entrance into confinement, and ſuppoſed to have contracted the infection before their ſhutting up, I met with no inſtance of the diſeaſe diſcovering itſelf later than the 9th or 10th day: but as ſuch perſons had been expoſed before their confinement, it was impoſſible, but by conjecture, to fix the time of infection.

[34] "Pour ce qui eſt du temps qu'il faut à ce venin pour ſe développer, quand il y à "une fois pénetré dans le corps, il n'y à rien de reglé; c'eſt aux uns plutôt, aux au- "tre plus tard, ſuivant les différentes diſpoſitions du ſang, & ſelon le concours des "cauſes externes, qui le mettent en jeu & en action. Dans les uns, preſque ſur le "champ, au moins du jour au lendemain; ç'a été le plutôt: dans les autres, deux, "trois, quatre, cinq, ſix jours, &c. juſques au trente-cinquième jour, qui eſt le terme "le plus éloigné qu'on ait pû obſerver." Traité de la Peſte, p. 381.

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I take it to be no leſs undetermined how long the bodies of convaleſcents from the plague, retain the power of communicating the infection to others; and at what period the matter diſcharged from peſtilential eruptions loſes its infectious property. Both circumſtances are of importance in reſpect to preſervative regulations; but, ſo far as I know, no attempt has been made to aſcertain them, unleſs it be by analogical deductions from variolous, venereal, or other contagions: and theſe being merely hypothetical, no certain concluſions can be eſtabliſhed.

A

TREATISE

OF THE

PLAGUE.

BOOK III.

Of Peſtilential Contagion.

CHAP. I.

Objections to the Doctrine of Contagion conſidered—Remarks on the Conduct of the Controverſy—Various Senſes of the Term Contagion—Other Diſeaſes confounded with the Plague.

THE queſtion whether the plague be a contagious diſtemper, has in former times been much agitated, and, from the abſtruſe nature of the ſubject, afforded ſuitable exerciſe for ſpeculative minds, in the retreats of ſcholaſtic medicine. But it was leſs to be expected that phyſicians who had been engaged in practice among the infected, ſhould have perſiſted in the opinion that the plague was never communicated by contagion.

Yet this appears to have been the caſe with ſome of the French phyſicians in the plague of Provence, in the year 1720; who, through the whole of their remarks on the diſeaſe, labour aſſiduouſly to ſhow that it aroſe from corrupt humours bred in the body,

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body, in conſequence of irregularity in the ſeaſons and bad aliment; that it was ſpread by the ſame means, in concurrence with terror, grief, deſpondence, or other debilitating affections of the mind; but was neither bred nor diſſeminated by contagion.[1]

For this purpoſe, thoſe gentlemen are at great pains in their narrative of peſtilential caſes, to mark ſtrongly ſuch circumſtances as ſeem to countenance the favorite hypotheſis;[2] but more eſpecially in caſes where the vulgar opinion would have been apt to ſuſpect contagion:[3] and while they paſs ſlightly over, or omit all mention of numbers of the medical aſſiſtants whom they ſaw periſh in the exerciſe of their profeſſion, they produce, as an irrefragable argument againſt contagion, their own eſcape unhurt, amid circumſtances of ſuppoſed danger.[4]

M. Deidier,

[1] Traité de la Peſte, p. 483, 528, 267, 317.
[2] Ibid. p. 244, 345, 300, 306.
[3] Ibid. p. 245, 269, 283 and 287, 308, 332, 334 and 341, 469, 475.
[4] Ibid. p. 307, 325, 355, 523.

It may be remarked here, that M. Chirac, the Regent's phyſician, in 1720, ſtrenuouſly oppoſed the opinion generally received, that the plague at Marſeilles had been imported from the Levant, and was propagated by contagion. Meſſrs. Chicoyneau and Verny, who, probably through M. Chirac's intereſt, were appointed by the court to go from Montpelier to Marſeilles, would ſeem to have gone determined to ſupport their patron's hypotheſis; as may be inferred from the pains taken in many inſtances, to ſhow how the diſeaſe was produced, independently of contagion. See Traité de la Peſte. Obſ. 2d. p. 246 and 260. Obſ. p. 308, 313, 317, and 333.

So late as the year 1778, Profeſſor Stoll, of Vienna, has written expreſſly againſt the doctrine of peſtilential contagion. But as from the queries propoſed by that gentleman, to the conſideration of the learned, he would ſeem to have beſtowed little attention on the writers by whom the points he propoſes have been diſcuſſed; I conceive it fully ſufficient to tranſcribe the late Mr. Howard's very ſenſible remark on the ſubject, without entering into a further refutation of the Profeſſor's raſh opinion. "It "appears very ſtrange and ſuſpicious (ſays Mr. Howard) that he ſhould go back to "Livy's Roman Hiſtory for proofs to eſtabliſh his point, totally neglecting all the "facts concerning the numerous viſitations of the plague recorded in modern medical "books, or which had happened during his own time. I ſuppoſe profeſſional men "will lay very little ſtreſs upon all that can be ſaid of peſtilential diſeaſes, in general,

which

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M. Deidier, who had adopted the ſame opinion, having found by experiments that the plague could be communicated to dogs, by injecting peſtiferous bile into their veins, found himſelf in the ſequel, under the neceſſity of acknowledging the plague to be contagious: not however in the ſenſe commonly received; for he reſtricts it to a long continuance near a ſick perſon, the drawing in repeatedly his infectious breath, the putting on his ſhirt or linen, the lying in the ſame bed clothes, and the touching a wounded part of ones own body, with hands embrued with the ſweat or blood of one infected.[5]

It may be remarked here, that in as much as M. Deidier allows the breath and ſweat to be infectious, he cannot help admitting, in ſome degree, an infectious atmoſphere ſurrounding the ſick body; and in allowing the linen of the ſick capable of imbibing and imparting the infectious effluvia, he clearly admits contagion by a fomes: but what is ſtill more remarkable, he allows the infection may be contracted by a perſon handling the buboes or carbuncles, whoſe finger may happen to be wounded; notwithſtanding the pains he had taken in another place to ſhow that the purulent matter of the eruptions was not infectious.[6]

After all theſe conceſſions, as if reluctant to depart from his former opinion, he affirms that the atmoſphere of a perſon in the plague, is no more to be dreaded than that of a venereal patient; and that touching or dreſſing the buboes and carbuncles is not attended with the leaſt danger.[7] An aſſertion boldly hazarded! But if once the operation of peſtilential effluvia, from the lungs

" which happened in wars and ſieges two thouſand years ago, as applied to the plague " properly ſo called, a diſeaſe then confounded with various others; from which the " accuracy of later obſervations have ſufficiently diſcriminated it. On Lazarettos, p. 42. Warrington, 1789.

[5] Traité de la Peſte, p. 356.
[6] Ibid. p. 519.
[7] Ibid. p. 357.

or

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or the ſurface of the body, be admitted, it is more than probable, that in adjuſting the requiſite conditions of infection, the too long ſtay, and too near the ſick. "Le trop long tems, & de trop près,"[8] will appear conditions too indefinite to be of much utility, except in an academic diſcourſe.

It deſerves alſo to be remarked, that the converſion of M. Deidier was brought about neither by the teſtimony of phyſicians and hiſtorians, in former times, nor by the dreadful ſpread of the diſeaſe at Marſeilles, of which he himſelf was a witneſs;[9] but by his experiments on the bile. "Toute maladie qui a un moyen "immanquable de ce communiquer eſt certainement contagieuſe; "or telle eſt la peſte; donc elle eſt certainement contagieuſe.[10]

He further gives his opinion, that the diſeaſe communicated by injection to brutes, would ſtill more certainly be communicated to man, were the experiment to be made on a condemned criminal:[11] but the concluſion is certainly raſh where he ventures, without having tried any of the other fluids, to affirm the bile only capable of conveying infection in that manner.[12] He, at the ſame time, confeſſes his ignorance by what paſſages infection is received. "C'eſt un myſtere qui me parôit impénétrable & ſur lequel on ne "peut propoſer que des conjectures,"[13] but conſiders the notion of the bile being principally affected in the plague, as confirmed by diſſection. It evidently influenced his treatment of the diſeaſe; and led him, in his narrative of caſes, to mark irregularity of diet, with no leſs care than Meſſrs. Chicoyneau and Verny, in their narratives, had done terror and apprehenſion.

[8] Traité de la Peſte, p. 356.
[9] Ibid. p. 348.
[10] Ibid. p. 362.
[11] Ibid. p. 362.
[12] Ibid. p. 203.
[13] Ibid. p. 522. 524.

I pay

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I pay the more attention to theſe authors becauſe the wide experience to which they conſtantly refer, juſtly renders their authority reſpectable; and it is cited, on all occaſions, by ſubſequent writers. At the ſame time, the accounts of the riſe and progreſs of the plague in which they practiſed, being more full and better authenticated than any I have met with; furniſhes, of all others, the moſt entire chain of evidence on both ſides of the queſtion on contagion.

But as it is by no means my intention to enter at large into the controverſy, I ſhall refer the reader to the Traité de la Peſte, wherein the principal arguments on each ſide are collected in a ſmall compaſs,[14] and ſhall only ſubjoin ſome general remarks ariſing from the peruſal of theſe, as well as the works of various other writers on the ſame ſubject: at the ſame time keeping matters of fact principally in view, and purpoſely avoiding diſquiſitions merely theoretical.

I. In the firſt place, the various and vague application of the term contagion has been the ſource of confuſion. In foreign languages, as well as in Engliſh, it has ſometimes been uſed for the plague itſelf; ſometimes as ſynonimous with infection; ſometimes for the virulent effluvia iſſuing from the ſick, or from ſubſtances infected; and ſometimes merely as a property common to various diſeaſes.[15]

Doctor

[14] Traité de la Peſte.

In favour of contagion, p. 118 to 153, p. 359, 369, 381, 450, 508, 547, 549, 552, 554, 558, 562, 564, 571, 589, p. 599, p. ii. p. 132, 134, 138, 140, 155, 160.

Againſt the ſyſtem of contagion, p. 110 to 117. p. 154, 185, 203, 206, 241, 344, 353, 467, 482, 520 to 528, p. ii. p. 121 to 128.

The two numbers, 134 and 467, deſerve particular notice.

[15] —— patet et peſtem eſſe omnium morborum qui contagione ſerpunt, etiam ad diſtans, contagioſiſſimam, unde a noſtris contagionis ſolo nomine ſubauditur. Guil. Beaumontenſis de Peſte, lib. i. 1629.

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Doctor Mead, in the firſt Edition of his Diſcourſe on the Plague, ſays that, " Contagion is propagated by three cauſes, the air, diſ-" eaſed perſons, and goods tranſported from infected places."[16] Upon this paſſage, a writer, who at the time attacked the Doctor's book with illiberal ſeverity, obſerves " that according to Doctor " Mead, air and his other cauſes propagate or ſpread contagion, " not the plague; and therefore either contagion and the plague " are the ſame, or elſe the plague is not conſidered: if the firſt, " then his cauſes propagate the plague; and the plague ac-" companies the plague; an excellent defence. But if the plague " is out of the play, then contagion accompanies nothing."[17] This laſt ſarcaſm was in reply to a pamphlet in defence of Mead, which aſſerted that contagion and infection were ſynonimous terms; and that the diſcourſe in treating of the cauſes that ſpread the plague, treated conſequently of the contagion which accompanies it.[18]

La peſte, uno dei piu terribili mali che poſſano affligere il genere umano, benche non ſia propriamente lo ſteſſo che il contagio, pure ſuole avere fra noi il nome di *contagio* perche toccare i corpi, o l'aria degli appeſtati; o le merci, o robe, loro, ſe ne infettano i ſani, con piu forza e ſtrage che non accade in altri morbi epidemici & attaccaticci—il perche contagio ſuo l'anche appellarſi la peſte. Muratori della Peſte, Edit 4. 1743.

" The plague, one of the moſt dreadful evils that mankind can be afflicted with, " though not properly the ſame with contagion, is nevertheleſs, amongſt us, uſually " known under that name; for by touching the bodies, or even the air ſurrounding " them, of thoſe ſick in the plague, or their goods, clothes, or other things about " them, perſons in health become infected more violently and fatally, than happens " in other epidemic and contagious diſeaſes. On which account contagion is alſo " called the plague."

" The manner of the peſtilential matter's operation, is called contagion or infection; " and by metonymy, putting the cauſe for the effect, we uſually call the matter itſelf " ſo, as having the virtue of contagious operation in it."

An Hypothetical Notion of the Plague by Mr. Place, Lond. 1721.

[16] A ſhort Diſcourſe concerning Peſtilential Contagion, Ed. vii. p. 2. Lond. 1721.

[17] Diſtinct Notions of the Plague, &c. by the Explainer. Lond. 1722. p. 5.

[18] Some Remarks on three Treatiſes of the Plague, &c. Lond. 1721. p. 11.

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The Doctor, however, who ſeems ingenuouſly to have profited of the ſtrictures made by his numerous adverſaries, thought proper, in order to avoid future cavil, to ſubſtitute plague for contagion, in the ſubſequent edition of his book.[19]

The ſame anonymous Author who had attacked Doctor Mead on this point, endeavours, from Fracaſtorius, to eſtabliſh, what he thinks, a more accurate notion of contagion. "When phyſicians ſpeak of contagion, they ſpeak of the μίασμα, inquinamentum, or infection paſſing from one thing, or one perſon, into another. Contagion always ſuppoſes two things. One from which the infection paſſes, and another which receives it. A perſon who dies of poiſon may be ſaid to be infected; but by no means that he has received his death by contagion.—When an infected perſon conveys to another the diſeaſe wherewith he is infected, and that by the touch, the ſecond perſon is ſaid to catch the diſeaſe, or to take it by contagion. When then we put the queſtion of the plague or any other diſeaſe being contagious, we are bound to determine from experience, as in the caſe of other contagious diſeaſes, what we know in fact of the plague being conveyed by contact, or contagion; which queſtion is then rather a queſtion of fact, than of phyſick. As alſo that the word contagion ſignifies nothing, as often as we find it by itſelf, or that it is carried, or conveyed upon, or in any thing whatſoever.[20]

That the queſtion whether the plague be a contagious diſeaſe, is rather a queſtion of fact than of phyſick, is very true; but the ſenſe to which the Author, in the above paragraph, would limit the word contagion, is certainly not ſtrictly conſiſtent either with the language of the ſchools, or with that of phyſicians: nor are

[19] Mead's ſhort Diſcourſe, 8th Ed. 1722. p. 41.

[20] Diſtinct Notions Notions of the Plague, with the riſe and fall of Peſtilential Contagion, p. 7 and 8, by the Explainer, Lond. 1722.

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thoſe guilty of a ſoleciſm who talk of various contagions, or of their being conveyed from one place to another, or of their operation under different circumſtances.

A celebrated modern Profeſſor reckons miaſmata and contagions amongſt the principal remote cauſes of fever. Miaſmata may ariſe from various ſources; but the miaſma ſo univerſally the cauſe of fevers, he ſuppoſes to be that which ariſes from marſhes or moiſt ground, acted upon by heat. Contagions ariſe from human effluvia in a virulent ſtate. "We have ſuppoſed that miaſmata "are the cauſe of intermittents, and contagions the cauſe of con- "tinued fevers, ſtrictly ſo named; but we cannot with propriety "employ theſe general terms. The notion of contagion properly "implies a matter ariſing from the body of man under diſeaſe; "and that of miaſma a matter ariſing from other ſubſtances. "But, as the cauſe of continued fevers may ariſe from other ſub- "ſtances than the human body, and may in ſuch caſes be called "a miaſma; and as other miaſmata alſo may produce contagious "diſeaſes, it will be proper to diſtinguiſh the cauſes of fevers, by "uſing the terms marſh or human effluvia, rather than the ge- "neral ones miaſma or contagion."[21]

I regret the having had no opportunity of hearing the theory reſulting from theſe diſtinctions fully explained, more particularly in their application to the plague, which the Author claſſes among the diſeaſes ariſing from a ſpecific contagion.

The contagions, though ſpoken of as a matter floating in the atmoſphere, are never (as the Profeſſor obſerves) "found to act "but when they are near to the ſources from whence they ariſe; "that is, either near to the bodies of men, from which they im- "mediately iſſue, or near to ſome ſubſtances, which, as having "been near the bodies of men, are imbued with their effluvia,

[21] Firſt Lines of the Practice of Phyſic, by W. Cullen, V. i. Edinb. 1777. p. 66, 72.

"and

" and in which ſubſtances theſe effluvia are ſometimes retained in " an active ſtate for a very long time. The ſubſtances thus im- " bued with an active matter, may be called fomites; and it ap- " pears to me probable, that contagions as they ariſe from fomites, " are more powerful than as they ariſe immediately from the " human body."[22]

How far the Profeſſor's conjecture may be juſt, I ſhall not pretend to determine. I ſhould be inclined to doubt that the peſtiferous effluvia of a perſon labouring under the plague, after the having been ſhut up ſometime in a ſubſtance fitted to imbibe and confine them, would act more powerfully on a perſon diſpoſed to infection, than the ſame effluvia would have done at the inſtant of their emanation from the morbid body. Doctor Lind and others are, however, of the Profeſſor's opinion.[23]

But whatever may be the opinions entertained on this point, or however expedient the ſubſtitution of the terms marſh and human effluvia, for miaſma and contagion, may be in a general theory of fevers, the change does not appear neceſſary in reſpect to the plague, where miaſma, atoms, effluvia, ſteam, particles, vapour, have hitherto been promiſcuouſly employed to expreſs the contagious or infectious emanation; and may, by the epithet peſtiferous, be ſufficiently diſtinguiſhed from variolous or other contagions, without aſſuming, as a fact, that the plague is bred or produced originally from vitiated human effluvia: a matter which, hitherto, has by no means been eſtabliſhed on proper authority.

[22] Cullen's Firſt *Lines*, p. 73.

[23] " By a fixed attention to this ſubject for ſome years paſt, I am convinced that the " body of the diſeaſed kept exactly neat and clean, is not ſo liable to impreſs the taint, as " his late wearing apparel, dirty linen, and uncleanlineſs of any ſort about him long " retained in that impure ſtate.—I ſay, theſe laſt contain a more concentrated, and " contagious poiſon, than the newly emitted effluvia or excretions from the ſick." Eſſay on the Health of Seamen, p. 221. Van Sweiten, Commentar. S. 1409. p. 182.

Waving

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Waving therefore a diſquiſition into the cauſes which might originally have bred the plague in a country where it may be ſuppoſed to be indigenous, as alſo the attempt of analyzing the matter of contagion, or noxious effluvia by which the diſeaſe is ſuppoſed to be communicated or ſpread; it will be ſufficient to enquire whether the infection be not communicated from a ſick to a ſound perſon, by immediate contact; whether it be not alſo communicated at ſome diſtance, through the medium of the air; and whether ſubſtances of various kinds do not imbibe the infectious effluvia, and retain them for a conſiderable time. So far as theſe points admit of proof from the experience of times paſt, the queſtion concerning peſtilential contagion will admit of ſolution, independent of all theoretical reaſoning whatever.

II. Another ſource of embarraſſment on the ſubject of contagion, has been the confounding the true plague with other epidemical diſtempers of fatal malignancy. The ancient hiſtorians as well as medical writers, blended various epidemical diſtempers, when they proved to be remarkably deſtructive, under one general title of plague;[24] and though in latter times, the true plague has been more accurately diſtinguiſhed as a particular diſeaſe characteriſed by its proper ſymptoms and eruptions,[25] ſome Moderns, adhering to the ancient nomenclature, ſtill contend that it differs only in degree of violence from other epidemic diſeaſes, "and conſequently any epidemic ſickneſs that rages with more than ordinary violence, and which occaſions an extraordinary mortality amongſt mankind, may be, and is properly termed a peſtilence or the plague."[26]

[24] On this ſubject ſee Pringle on Diſeaſes of the Army. Ed. p. 328, 348. Huxham on Fevers, p. 92, 110. Lind's Eſſay on the Means of preſerving the Health of Seamen, &c. p. 200. Cullen Synopſis & Noſolog p. 71. Firſt Lines, V. i. p. 61.

[25] Cullen Synop. p. 134. Firſt Lines, Ed. 2. p. 14. Mead on the Plague, p. 5, 8, 20, 21, and 33.

[26] A Diſcourſe of the Plague by G. Pye, M. D. Lond. 1721. p. 3.

The

The references at the bottom of the preceding page, renders it unneceſſary to ſay any thing more on this head, than merely to remark that unleſs diſtinction be ſcrupulouſly preſerved, circumſtances belonging to what are commonly termed malignant or peſtilential fevers, will often come to be very improperly applied to the true plague.

III. It may be remarked thirdly, that thoſe who contend in favour of contagion, have ſometimes from zeal for accumulating proofs, collected a number of facts from hiſtorical records of very unequal authority, and often with little critical ſkill in diſcrimination. Of this error their antagoniſts availing themſelves, have ſelected from the maſs the inſtances moſt liable to doubt or objection, and have endeavoured by their manner of arranging them, to place the whole in a ridiculous light: while more important inſtances are either evaſively paſt over, miſtated in the repreſentation, or invalidated by general declamation on the little credit due to hiſtorians in matters of phyſick; or the prejudices prevalent in ancient times of ignorance; and on the contradictions to be found in the arguments of thoſe who ſupport the ſyſtem of contagion.[27]

IV. The mingling hypothetical and abſtruſe reaſoning on the nature of peſtilential effluvia, and their manner of operation, with matters of obſervation and experience, may be reckoned a fourth cauſe of embarraſſment. It calls the attention off from the main queſtion, and entangles it in ſpeculations which ought ever to be kept diſtinct. It leaves acceſs to the various arts of controverſy; facts are ſelected to anſwer the preſent purpoſe, and ſometimes ſtated with much partiality: inferences are raſhly drawn from diſtant analogies; and what ought to be a calm enquiry in purſuit of truth, deviates into a wrangling conteſt for victory.

V. Laſtly, the queſtion when reduced within its proper bounds, ſeems to have been properly reſolved in the affirmative; but ſhould

[27] Traité de la Peſte, p. 110, 154, 159, 176.

doubts

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doubts ſtill remain after reading the extract from M. Aſtruc,[28] the means to which the Montpelier phyſicians have been obliged to have recourſe in ſupporting a contrary opinion, their miſtating of circumſtances, and the partiality ſo evidently diſcernible in their narrative of caſes, will ſerve more effectually to remove any ſuch doubts, than any arguments that could be urged againſt their hypotheſis.

Having premiſed theſe general remarks on a controverſy, which I have declined entering theoretically into; and given my opinion on the deciſion of the queſtion under its proper limitation; I am nevertheleſs ready to acknowledge, that the received doctrine of contagion is ſtill attended with ſome difficulties, which have not hitherto been accounted for. Theſe certainly remain fit ſubjects for future enquiry; but do not appear to be objections of force to invalidate facts already eſtabliſhed. It is well known, at preſent, that the ſame perſon who has been inoculated two or three times for the ſmall-pox, without effect, even in an epidemical ſeaſon, has afterwards received the infection, upon repeating the operation at a diſtance of time when the diſeaſe was hardly ſporadic. The cauſe of this remains unknown; but ignorance of it was never produced as an argument againſt the reality of variolous contagion.

If of one hundred perſons expoſed to the infection of the plague by a near approach to the ſick, ninety ſhould fall ſick, ſhall human inability to aſſign ſatisfactory reaſons for the preſervation of the other ten, be converted into a poſitive argument againſt the diſeaſe having been caught by contagion! If perſons retired from all commerce with the infected and their attendants, breathing the ſame air with the reſt of the inhabitants, and nouriſhed by the ſame aliment, remain untouched during the ravage of the plague, as long as they continue ſecluded, but upon unguarded communication are taken ill like

[28] Traité de la Peſte, p. 118, 153.

others;

others; can any rational doubt ariſe about the cauſe of their former ſecurity! Or if through ſtealth, or neglect of requiſite precautions, ſubſtances tainted by the ſick ſhould be conveyed into theſe ſecluded retreats; and perſons living temperately as before, ignorant of what had happened, and conſequently in the midſt of imaginary ſecurity, happen to be ſeized with the diſtemper; can it with any ſhow of reaſon be aſcribed, not to contagion, but to terror, or to colluvies in the ſtomach and bowels, produced by intemperance and bad aliment? The inſtances here alluded to are not the creation of fancy, but ſtrictly conſonant to repeated experience in Turkey: to ſay nothing at preſent, of what has been obſerved at Marſeilles and in various cities in Europe.

But a greater difficulty than that of all perſons not being equally ſuſceptible of infection, ariſes from the ceſſation of the plague, at a period when the ſuppoſed contagious effluvia preſerved in apparel, furniture, and other fomites, at the end of a peſtilential ſeaſon, muſt be allowed not only to exiſt in a much greater quantity than can be ſuppoſed to be at once accidentally imported by commerce, but in a ſtate alſo of univerſal diſperſion over the city. The fact, however unaccountable, is unqueſtionably certain; the diſtemper ſeems to be extinguiſhed by ſome cauſe or cauſes equally unknown, as thoſe which concurred to render it more or leſs epidemical, in its advance and at its height. In Europe, ſomething may be aſcribed to the means employed for the cleanſing of houſes and goods ſuppoſed liable to retain the latent ſeeds of infection; but at Aleppo, where the diſtemper is left to take its natural courſe, and few or no means of purification are employed, it purſues nearly the ſame progreſs in different years: it declines and revives in certain ſeaſons, and at length, without the interference of human aid, ceaſes entirely. The Levant furniſhes ſome curious circumſtances relative to the termination of the plague, and I ſhall have occaſion to enter more at large on the ſubject in another place.

CHAP. II.

The Doctrine of Contagion confirmed by experience at Marſeilles—The Plague did not exiſt in the Town before the Month of May—Was imported in Merchandiſe from the Levant. Objections examined.

IT was obſerved before, that the accounts which have been tranſmitted of the laſt plague at Marſeilles, are more full, and circumſtances better authenticated, than moſt of the accounts of anterior plagues to be met with in books. It may be further remarked, that as the popular opinion of contagion was oppoſed, at the time, by ſome phyſicians practiſing on the ſpot, it may reaſonably be ſuppoſed the facts which ſeemed to favour the prevalent opinion, would undergo a ſtricter ſcrutiny, and if found not conformable to truth, would have been expoſed: but, if inſtead of ſuch detection, the moſt material are found to have been paſt over in ſilence, and little more than hypothetical reaſoning oppoſed to others, the main facts may be conſidered as eſtabliſhed, if poſſible, more firmly than they were before. This I think will appear to be exactly the caſe, upon an attentive peruſal of the Journal, and of the hiſtorical Account of the Plague of Marſeilles, joined with the paſſages in the Traité de la Peſte, already referred to.[1]

The points which, to me, appear to be clearly eſtabliſhed reſpecting the plague at Marſeilles, are the following:

1ſt. That the plague did not exiſt in France before the 25th of May, 1720.

2d. That it was imported in goods from the Levant, by a ſhip which left the coaſt of Syria the beginning of February, and arrived at Marſeilles the 25th of May.

[1] See before Chap. I.

3d. That

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3d. That two days after the arrival of this ſhip, one of the ſailors died; on the 12th of June, an officer of quarantine who had been put on board, died alſo; and this was followed by the death of a cabin boy on the 23d. About the ſame time, ſome porters employed in opening the merchandiſe, in the Lazaretto, were taken ill and died; in the firſt week of July, three others fell ſick in like manner, but, in theſe, buboes were diſcovered in the axilla and groins. The ſurgeon of the Lazaretto, who had hitherto aſcribed the alarming mortality to ordinary fevers, now, for the firſt time, expreſſed his ſuſpicion, and a conſultation being held with two other ſurgeons, they, after viſiting the ſick, gave their opinion in the moſt expreſs terms to the council of health, that the three patients had the plague. This was on the 8th, and all three died next day. The prieſt who had adminiſtered to the ſick, and the ſurgeon of the Lazaretto with part of his family, were infected alſo and died.[2]

According to the hiſtorical account, the diſtemper diſcovered itſelf in the city about the 20th of June, but inſtances were rare before the firſt of July, when ſeveral accidents happened in the Rue

[2] A brief Journal of what paſſed in the city of Marſeilles. Lond. 1721.

Relation Hiſtorique, &c. p. 28. Traité de la Peſte, p. 5 and p. ii. p. 188.

Doctor Mead was of opinion, that it appeared indiſputable from the Journal of the Plague at Marſeilles, "the miſchief was brought thither by goods from the Levant." Diſcourſe, p. 47. In a book publiſhed in 1755, it is imputed to the Doctor, that the opinion of contagion would have gradually died away, had he not revived and ſupported it; "that his arguments, however, eſtabliſh nothing, nor indeed can be deemed "arguments, but they are of no ſmall weight with many people, on account of his "great credit and high character." The Title of this Book is an Hiſtorical Account of the ſeveral Plagues that have appeared ſince 1346, with an enquiry into the preſent prevailing opinion on Contagion, &c. by Dale Ingram. He is one of the lateſt writers againſt Doctor Mead; is very inaccurate in his ſtatement of facts; and has borrowed moſt of his arguments from ſome of the Doctor's early opponents.

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de l'Eſcale.[3] On the 9th Meſſrs. Piſſonel, phyſicians, gave information of a young man taken ill in another quarter of the city; the ſiſter was taken ill the next day, and the brother died. She with the reſt of the family were tranſported to the Lazaretto, where they all periſhed. It ſhould be remarked that the paſſengers on the ſhips which arrived afterwards from the Levant, the end of May and in June, notwithſtanding they brought foul patents, having performed only the uſual quarantine of ſixteen or nineteen days, were admitted into the city ſoon after the middle of June. Of theſe, one named Boyal, died with a bubo in the arm-pit.[4] From the 12th of July to the 23d, there was a deceitful pauſe, during which the popular apprehenſions began to ſubſide. The phyſicians were reproached with ignorance in having miſtaken ordinary fevers for the plague; and the precautions taken by the ſheriffs were condemned as unneceſſary. The diſeaſe however, in this interval, had continued to ſpread in the Rue de l'Eſcale, of which the council of health were informed about the 18th. A ſurgeon who was ſent to examine into this matter, declared the diſorder to be a worm fever. About the 23d the council were informed of the death of no leſs than fourteen perſons in that quarter, and of ſeveral others falling ſick. The ſurgeon adhered to his former opinion, but a phyſician, who accompanied him at this viſit, declared the diſtemper to be the plague[5]. From this time the plague ſpread in different places, and by the end of the month had

[3] Relation Hiſtorique, p. 40.

[4] Ibid. p. 43.

The Hiſtorical Relation declines the giving any deciſive opinion in what manner the plague was conveyed from the Lazaretto into the city, but it would appear, from what he ſays, it was by ſmuggling infected goods. Relat. Hiſtorique, p. 50.

[5] Relation Hiſtorique, p. 47.

There is ſome variation in dates and other circumſtances between the accounts contained in the Journal, and the hiſtorical Relation of this period of the plague; but they agree in all material points. I have chiefly followed the latter, which was written after the Journal, and enters into details, probably through delicacy omitted by the journaliſt, who had himſelf a ſeat in the council of health.

The

had got into the ſuburbs. Four phyſicians were appointed to attend the infected, and all declared the diſeaſe to be the true plague; but it having been hitherto confined chiefly to the lower claſs of people, the report of the phyſicians was not credited, their perſons were inſulted in the public ſtreets, and the popular infatuation did not ceaſe till ſome of the inhabitants of better rank were taken ill. After the firſt week of Auguſt the diſtemper increaſed rapidly, and univerſal diſmay ſoon ſucceeded [6].

Such was the riſe of the plague at firſt, and its progreſs afterwards in the months of June and July; whence it appears that perſons on board the ſuſpected ſhip, thoſe employed in airing the goods, a ſurgeon and a prieſt who attended the ſick were among the firſt infected. That the paſſengers from the ſeveral ſhips, all of which ſhips, the firſt excepted, brought foul patents, were, together with their baggage, admitted into the city, after performing a quarantine of little more than eighteen days. That the diſtemper from the 20th of June till towards the end of July, advanced very ſlowly, and ſometimes ſeemed to pauſe. That it attacked chiefly the poorer ſort of people, and was found in diſtinct quarters of the city, but more particularly for ſome time among families inhabiting the Rue de l'Eſcale, where it broke out the beginning of July. And laſtly, that during the firſt forty days, few or none of the infected recovered; a circumſtance entirely conſonant to what was obſerved in the beginning of the plague at Aleppo.

The council of health had certainly an arduous taſk on their hands, and the magiſtrates in the ſequel exerted themſelves with noble reſolution; but it is clear even from the Journal, which endeavours to gloſs matters over, that they had been very remiſs in the meaſures taken at the beginning; that they truſted too long to the judgment of the ſurgeon of the Lazaretto, and ſeemed to diſcourage the information given of the firſt appearance of the diſtemper in the city; circumſtances that indicate the preponderance of private intereſt, ſo far as commercial concerns were likely to be affected, to the duty of their public ſtation.

[6] Relation Hiſtorique, p. 61.

4th.

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4th. That the diſtemper was evidently communicated from the ſick to the ſound by contagion.

5th. That thoſe who carefully ſecluded themſelves from all communication with the ſick, or with perſons and goods which had been expoſed to infection, were not attacked by the diſeaſe.

6th. That the plague began to advance rapidly in the beginning of Auguſt; raged through that and the following month, declined faſt in the courſe of October and November, and ſeemed to ceaſe in the middle of the winter. Between the month of February and July, 1721, peſtilential accidents occaſioned, from time to time, alarm in the city, but the diſtemper, to whatever cauſe it might be owing, did not ſpread; and it terminated entirely after the ſummer ſolſtice of that year.

Some of the references now drawn reſpecting Marſeilles, have been ſtrenuouſly diſputed both in France and in England; and as their truth is of material conſequence in the queſtion concerning quarantines, I ſhall conſider the principal objections made to them.

Two objections have been ſtarted to the firſt, viz. that the plague did not exiſt in France before the month of May. One, that the irregularity of the ſeaſons in the preceding year, a bad crop and unwholſome aliment, had concurred to the production of a malignant epidemic, and that theſe cauſes, joined with the popular dread of contagion, were ſufficient to account for the diſtemper at Marſeilles, without having recourſe to any other, or to imported infection[7]. This having been fully refuted elſewhere, by ſhowing that the facts aſſumed never exiſted[8], I ſhall paſs over.

[7] Traité de la Peſte, p. 205, 527.
[8] Ib. p. 210. Relat. Hiſtor. p. 24, 422.

The ſecond deſerves more conſideration, in as much as it affirms that there were actually inſtances of the plague obſerved in Marſeilles before the 25th of May. In ſupport of this, M. Deidier informs us, that he had been at pains to make enquiry, and produces five caſes which he had diſcovered, and which he conſiders as undoubtedly peſtilential[9]. In the paſſage laſt referred to, three caſes only are mentioned, the two others are found in another place[10]. The purpoſe for which theſe caſes are intended, juſtifies an inference of their being the moſt clear and unequivocal in his power to collect; and I ſhall curſorily remark on each ſeparately. Mademoiſelle Augier died the 19th or 20th of April. A parotis had appeared the 13th, but it is not mentioned how long ſhe had been diſordered before its eruption, nor is there any mention whatever made of the concomitant ſymptoms. Mademoiſelle Conſtan, aged 28, had a carbuncle, accompanied with fever, which had very near proved mortal between the 3d and 4th of May. This is the entire narrative; no mention when ſhe was taken ill, nor how treated. Mademoiſelle Bote was ſeized with a violent fever the 20th of May. She had a gentle ſweat on the ſecond and third day, which was encouraged by a ſlight diaphoretic. On the 5th ſhe was free from fever, and a bubo the ſize of an egg was diſcovered in the groin; this coming to ſuppuration was opened, and ſhe recovered.

Theſe three caſes M. Deidier thinks fully ſufficient to prove the exiſtence of the plague before the 25th of May. I ſhall add, however, the other two, that the whole of the evidence may appear together. Mademoiſelle Carwin was taken ill the 16th of April; a parotis appeared the 28th or 29th of that month, but diſappeared on the third day, and ſhe died the day following, that is about the 17th of the diſeaſe. No ſymptoms are deſcribed, and the treatment is entirely omitted. M. André complained firſt

[9] Traité de la Peſte, p. 527.
[10] Ib. p. 204.

on

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on the ſecond of June of loſs of appetite, and a carbuncle on the thigh. A pledget of baſilicon being applied and covered with a gum plaſter, the tumor became very painful in the night. On the third day a fever came on, attended with head-ach, dryneſs of the tongue, wildneſs in the eyes, and a ſwelling in the fold of the thigh. The tumor opened and was cured in twenty-five days. No internal medicines are mentioned here, no ſcarification of the carbuncle, nor one peſtilential ſymptom, the wildneſs of the eyes excepted, and of this circumſtance, it is highly probable the apothecary was reminded by M. Deidier.

This is the whole of the evidence produced for a fact in contradiction to the united voice of the phyſicians of the city [11]. M. Deidier ſaw not the caſes himſelf, yet from the very imperfect accounts he had been able to glean, he thought himſelf juſtified in declaring they bore all the marks of the true plague [12].

Nothing but extreme partiality to an hypotheſis could have led any one, practiſed in the plague, into ſuch a declaration; the caſes bearing every internal mark of belonging to a different claſs from the plague: I ſhall endeavour to ſhow this in a few words.

Of the five ſuppoſed infected patients, three recovered, two died, and all had eruptions, One who died had a parotis (the moſt ambiguous of all the peſtilential tumors) without any concurrence, ſo far as appears, of peſtilential ſymptoms. The tumor had appeared ſix days before the woman's death, but how long ſhe had been ſick remains unknown. The other died the 16th or 17th day, a very unuſual period in the plague. She alſo had a parotis, which did not make its appearance till the 10th or 11th day of the diſeaſe. No peſtilential ſymptoms whatever are mentioned. Of the three who recovered, one was very ill with a

[11] Relat. Hiſtor. p. 427.

[12] Traité de la Peſte, p. 204, 527.

fever and carbuncle, but neither the invaſion nor duration of the diſeaſe are mentioned. Another had a carbuncle and a ſmall tumor in the thigh; and the third (which bears the neareſt reſemblance to a very ſlight infection) had alſo a bubo in the thigh; but the tumors in neither of thoſe patients are deſcribed in ſuch a manner as diſcriminates them from ordinary tumors, and the apothecary, who gives the account from memory, had in all likelihood never ſeen a peſtilential bubo before.

Of the perſons infected for ſome time after the arrival of the ſhips from the Levant, none had eruptions, and all periſhed after a few days illneſs; which agrees entirely with what was obſerved at Aleppo in the beginning of the plague: hardly any of the ſick recovered, and the major part died, in three or four days, without any appearance of buboes.

Upon the whole therefore, I think it very clearly eſtabliſhed, that the plague did not exiſt in France before the month of May, 1720[13].

The ſecond point, namely, that it was brought to Marſeilles in infected goods from the Levant, having been moſt of all diſputed, requires a fuller diſcuſſion.

"Captain Chataud's veſſel, ſuppoſed to have brought the in-
"fected goods, arrived with a clean patent, or bill of health,
"having left the coaſt of Syria before the plague broke out there,
"ſhe conſequently cannot reaſonably be thought to have tranſ-
"ported the plague, which was not in the ports from whence ſhe
"came[14].

[13] Prior to M. Deidier, I find a M. Pons had endeavoured to prove that the plague was in Marſeilles not only before the month of May, 1720, but even in the preceding year. See Relat. Hiſt. p. 411. I have not had an opportunity of ſeeing that gentleman's book.

[14] Traité de la Peſte, p. 165.

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In anſwer to this it ſhould be obſerved, that though Chataud's veſſel brought a clean patent from the coaſt, the plague broke out there ſoon after her departure; that the diſeaſe generally lies lurking ſome time in the place before it occaſions alarm, but was rife in the maritime towns of Paleſtine and Syria from the month of March; and that three veſſels, with foul patents, arrived at Marſeilles a few days after the arrival of Captain Chataud[15]: to this may be further added, that notwithſtanding his clean patent, perſons acquainted with the Levant will think it far from improbable that the plague might actually have been in Sidon when he ſailed, though unknown to the magiſtrate by whom the patents are granted. In order to explain this, it will be neceſſary to enter into a detail of matters not generally underſtood in England.

The diſcovery of the plague in any of the trading towns of Turkey, where Europeans are eſtabliſhed, produces ſuch a ſtagnation of commerce, that the natives, more eſpecially thoſe connected with the European trade, uſe every poſſible means of concealment. The uſual courſe of the diſeaſe in Syria favours this deception, for accidents in the beginning, or the reſuſcitation of a plague early in the ſpring, are always few, and often happen among the lower claſſes, of whom the Franks have little opportunity of knowing any thing, except through thoſe very dependants who are tempted by intereſt to deceive them. Should rumours of ſudden death chance to get abroad, they are variouſly and contradictorily repreſented; and tumors or other marks on the body, are ſometimes fraudulently concealed. But in the winter, or early in the ſpring, the characteriſtic eruptions are often abſent, and perſons employed near the ſick often eſcape infection, which renders it difficult to decide poſitively on the nature of the diſeaſe. This concurrence of circumſtances, which I repreſent from repeated experience, renders it no eaſy matter for the magiſtrate, however vigilant, to procure exact information.

[15] Journal, p. 2.

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In the regulations of the French and Engliſh, in regard to patents, or bills of health, there is a material difference. The French diſtinguiſh three kinds of patents[16]; clean, ſuſpicious or touched, and foul. The Engliſh admit the firſt only, for their ſhips cannot be diſpatched to England with either of the other two. The French ſhips may be diſpatched with any one of the three patents, the quarantine of Marſeilles being regulated accordingly.

The French Conſul at Aleppo, in the ſame manner as the Engliſh, is prohibited from having any concern whatever in commerce; in the inferior ſea ports on the coaſt, the Conſuls or Vice Conſuls are permitted to trade.

As the ſtate of the place in reſpect to health, whatever that may happen to be, proves no impediment in the diſpatch of the French ſhips, the patent is ſuppoſed to comprehend a diſtinct detail of circumſtances, to the beſt of the magiſtrate's knowledge; and it is the buſineſs of the council of health at Marſeilles, in regulating the ſhip's quarantine, to claſs the patent brought by her as it ſhall to them appear expedient. A clean bill of health imports that the place has been free from plague, and all ſuſpicion of plague, for a certain ſpace of time; but the clean patents of the firſt two ſhips arriving from the Levant, after the ceſſation of the plague, are, according to Mr. Howard, deemed foul at Marſeilles, and the paſſengers are obliged to perform a quarantine of thirty-one days.

The French Conſuls lying under an obligation to inſert in their patents a detail of circumſtances, it muſt appear ſtrange, when the condition of Syria at that time is conſidered, how Captain Chataud ſhould have obtained a clean patent.

[16] Memoire ſur le Bureau de la Santé de Marſeilles, &c. p. 40. Marſeilles, 1753, 4to.

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In the preceding year, 1719, the plague had raged at Aleppo with dreadful violence. The Europeans ſhut up the middle of March, and remained in confinement four months. Some writers aſſert that ninety thouſand ſouls were carried off in half a year; but the number, moſt probably, is exaggerated.

I conſider Doctor Ruſſel's account in all reſpects more to be depended on, who ſays, "the plague, in the year 1719, made "terrible havock at Aleppo. It advanced with ſuch rapidity in "the ſpring, that the Europeans ſhut up about the middle of "March, and remained in confinement till the middle of July. "I have been told it came from the northward; but none of the "letters or journals I have peruſed make mention of that cir-"cumſtance, though all of them confirm its raging at Tripoly, "Sidon, and other places in that neighbourhood, ſome months "before it appeared at Aleppo.[17]"

Whether the plague be ſuppoſed to have invaded the coaſt, before its coming to Aleppo, which ſeems highly probable, or to have broke out there for the firſt time in the ſpring of 1720, its having raged at Aleppo rendered the times highly ſuſpicious; for there is no example on record of the plague having ever viſited that city, without the maritime towns being ſooner or later affected alſo.

If the coaſt of Syria was free in the year 1719, there was ſtill more reaſon to expect a viſit in the following ſpring. From the numbers who fly thither from Aleppo in times of public calamity, either in hopes of refuge, or of meeting with opportunities of paſſing over to Cyprus or Egypt, danger at ſuch times is conſtantly apprehended: not to mention what ariſes from the internal commerce of the natives, which is never wholly interrupted. If the plague had raged on the coaſt in 1719, and, as

[17] Diſtinct Notions of the Plague, p. 106.

uſual,

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uſual, either declined in the autumn, or in appearance ceaſed in the winter, there was always ground for apprehenſion, till the ſpring ſeaſon of 1720 ſhould be well advanced.

The French Conſuls on the Coaſt could not poſſibly be ignorant of the circumſtances now recited; it muſt therefore appear ſurpriſing how they could grant patents expreſſive of no ſuſpicion. Neither could the council of health at Marſeilles be ignorant of what had happened in Syria in the preceding year; and they had received intelligence of the actual ſtate of the coaſt a month before the arrival of the ſuſpected ſhip. The facility with which the patents ſeem to have been iſſued in Turkey, and the partial indulgence of the council to Chataud's ſhip, notwithſtanding the very extraordinary mortality which had avowedly happened on the voyage, together with their eaſy confidence afterwards in the reports of the ſurgeon of the Lazaretto, can only be accounted for from the prevailing influence of private commercial intereſt, over the ſenſe of official duty.

Having ſhown what weight is due to the objection ſtarted by M. Deidier, and which has ſo often been triumphantly repeated by ſubſequent writers, "that it was impoſſible infection could "have been brought in a ſhip, from a port where the plague "had not broke out before the ſhip took her departure,[18]" I ſhall proceed to make ſome remarks on the accidents that happened during the courſe of Captain Chataud's voyage.

The journal extracted from the regiſter of the council at Marſeilles, and publiſhed by authority, ſays, "that Chataud's "ſhip arrived the 25th of May from Sidon, Tripoly in Syria "and Cyprus. That his patent was clean, having left the coaſt "of Syria the 31ſt of January, before the plague broke out "there: that he had loſt ſix of the crew, in his voyage, or at Leg-"horn, where he touched, but he ſhews by the certificate of

[18] Traité de la Peſte, p. 165.

"the

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" the phyſicians of health at Leghorn, that they died only of " malignant fevers, cauſed by unwholſome proviſions[19]."

This account is not near ſo circumſtancial as what is given in the Relation Hiſtorique, and the Traité de la Peſte; and in the latter it is aſſerted, that *the malignant fevers produced by unwholſome proviſions*, was an interpolation made at Marſeilles[20]. At any rate the certificate from Leghorn could affect only the three ſailors who died there, not the others whom the phyſicians had not ſeen: and the indirect manner in which the Journal would ſeem to apply the opinion of the phyſicians to all the accidents, renders the certificate ſuſpicious.

According to the Relation Hiſtorique, and the Memoir to Monſieur Dodart, Captain Chataud's veſſel left Sidon the 31ſt of January, with a clean patent. The plague diſcovered itſelf there a few days after his departure. Having ſuſtained ſome damage from bad weather, he put into Tripoly, where he repaired his veſſel, and embarked ſome merchandiſe: he took in alſo certain Turks, paſſengers for Cyprus, together with their luggage. Soon after the ſhip had left Tripoly, one of theſe paſſengers fell ill, and died. Two of the ſailors employed to throw the corpſe overboard deſiſted at the deſire of the pilot, and the reſt of the ceremony was performed by the other Mohammedan paſſengers. The ropes, with which the body was lowered down, being by way of precaution committed to the ſea. Within a few days the two ſailors who had handled the corpſe were taken ſick, and died. At Cyprus the ſhip put her remaining paſſengers on ſhore, and made a very ſhort ſtay. Soon after her departure from that iſland, a third ſailor and the ſurgeon died of an illneſs of a few days duration. The captain, juſtly alarmed by theſe accidents, ordered the bedding and other things uſed by the deceaſed to be thrown into the ſea; and kept himſelf carefully ſeparate from the crew,

[19] Journal, p. 2.
[20] Traité de la Peſte, p. 5.

during

during the remainder of the voyage. Some time after this, three more ſailors fell ſick, and there being no ſurgeon on board, the veſſel put into Leghorn; where the three ſick men died, and the phyſician and ſurgeon of the Lazaretto declared the diſeaſe to be a malignant peſtilential fever[21].

It is unneceſſary to make any comment on this narrative, as clearer evidence of a veſſel being infected can hardly be expected; and either the captain muſt have been guilty of moſt criminal reſervation, or the council of Marſeilles of moſt unjuſtifiable neglect, in the not uſing ſtricter precaution at the beginning[22].

In regard to general arguments againſt the poſſibility of the plague being tranſported in merchandiſe, I wave them entirely, at leaſt for the preſent, for if there be ſufficient evidence of its having been in that manner conveyed to Marſeilles, ſpeculative reaſonings on the poſſibility of contagion, per fomitem, degenerate into ſcholaſtic diſputation.

Under the third article of facts eſtabliſhed by the French Memoirs relative to the beginning of the plague at Marſeilles, it has been ſhown that the infection was firſt communicated to ſome perſons on board of Captain Chataud's veſſel; afterwards, to ſome porters employed in opening and airing part of the cargo in the Lazaretto; and about the ſame time, to the city, moſt probably by contraband goods, or other things ſurreptitiouſly conveyed into it[23].

The objections to this regard the diſeaſe while in the Lazaretto, and after it was diſcovered in the town.

[21] Relation Hiſtorique, p. 29. Traité de la Peſte, p. 3. There is ſome variation in circumſtances in theſe two narratives, but they agree in the main facts.

[22] See on this head, Traité de la Peſte, p. 5. and p. ii. p. 188.

[23] Traité de la Peſte, p. 135, 136.

In

In reſpect to the firſt, I do not find in any of the French Memoirs in the Traité de la Peſte, that the diſeaſe of which the porters in the Lazaretto died, is denied to have been the true plague; the accidents were ſo circumſtanced as not to admit of contradiction: but ſome Engliſh writers have endeavoured to render it doubtful, by allowing great weight to the declaration of the phyſicians and ſurgeon, who had not hitherto diſcovered what they conſidered as certain marks of the plague. "We "find here a ſickneſs, but it is a malignant fever: but had this "ſickneſs been the plague, it could not be ſaid to be brought by "the goods of Chataud's ſhip[24]."

This writer, with the Journal before him, which he profeſſes to follow, having mentioned the death of the ſailor on the 27th of May, paſſes over the whole of the ſubſequent deaths of the porters in the Lazaretto, as alſo the circumſtance of the ſurgeon, upon the diſcovery of buboes, at length retracting his former miſtake.

Secondly, The author allows "the matter of fact related in "the Journal to be the moſt proper to determine any queſtion "about peſtilential contagion; not only in France, but every "where - - - it ſets every thing in its proper light[25]. The firſt "ſhip, (continues he) that arrived with a foul patent, was that "of Captain Gabriel, the 13th of June: another ſhip with a foul "patent arrives the 28th from Sidon. Both theſe ſhips are "very fatal to the doctrine of the plague being contagious; for "there is not one ſick perſon aboard either of them, nor does "any cuſtom-houſe officer, or any officer of health, catch any "diſtemper from the companies or goods of theſe ſhips: ſo that "if any inference in favour of contagion is to be drawn from the "hiſtory of theſe ſhips, we find theſe goods moſt dangerous "where there is no ſuſpicion of the plague, and the ſhips and

[24] Diſtinct Notions, &c. p. 115.
[25] Ibid. p. 116, 118.

"cargoes

" cargoes arriving from infected parts, bring no peſtilential in- CHAP. II.
" fection along with them[26]."

Now let us ſee in what manner the hiſtory of theſe two ſhips comes to be ſo fatal to the doctrine of peſtilential contagion; keeping ſtrictly to the Journal, which is allowed " to ſet every " thing in its proper light." The goods of Captain Gabriel's ſhip, which arrived the 12th of June, were received into the Lazaretto. She had loſt no men in the paſſage, nor were any perſons on board taken ſick after her arrival in the port; but on the 23d of June, one of the porters employed in airing her goods was taken ſick, and died in three or four days; in conſequence of which, ſhe, together with the other veſſels at Pomegue, was ordered to the iſland of Jarre, and more rigorous reſtraints were impoſed on thoſe working on the goods in the Lazaretto. The whole of this is ſuppreſſed. The goods of the ſhip that arrived on the 28th of June were not received into the Lazaretto, and the Journal makes no mention of her after her arrival; ſo that her hiſtory is very imperfect. Thus of the two ſhips, the hiſtory of which was to overſet the doctrine of contagion, one furniſhes a proof of her cargo being infected, and of the other we know no more than that her cargo was landed on the iſland of Jarre; had ſhe loſt any men on the voyage, the Journal would moſt probably have mentioned it; but what happened afterwards remains unknown.

The author forbears drawing any conſequences from the healthful ſtate of the three veſſels which arrived the laſt of May, on account of no particular mention being made of their certificates. The Journal, however, mentions that two of them came from Sidon after the appearance of the plague there, which implied their patents to be foul. But there was a better reaſon for the author's forbearance; a porter employed in purifying the goods of one of theſe ſhips was infected the 24th of June, which

[26] Diſtinct Notions, &c. p. 118. Journal, p. 3.

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being unfavourable to the hypotheſis, muſt have been ſuppreſſed in the ſame manner as the accident from Captain Gabriel's cargo. It is difficult to conceive how two ſuch capital miſtakes ſhould happen through mere inadvertence, but the author, in the heat of controverſy, found himſelf reduced to the neceſſity of giving a partial repreſentation of facts, in ſupport of the ſtrange concluſion he wiſhed to draw from the Journal.[27] Chataud's veſſel is ſaid not to have been ſuſpected, though ſhe had loſt ſix or ſeven of the crew on the voyage; and a ſhip with a foul patent is declared to bring no infection, though a porter in airing her cargo is ſtruck with the plague.

Another writer, who appeared nearly about the ſame time with the anonymous author of the Diſtinct Notions, and a profeſſed adverſary to the doctrine of contagion, had obſerved, "if "perſons, who firſt unpack the goods coming from infected "places in the Lazarettos abroad, are never injured thereby; "and I cannot hear of any inſtance that they ever have; it may "be inferred either that goods do never receive the infection, "or that they do not retain it." To this a pamphlet, which appeared in vindication of Doctor Mead, very properly replied, "that the Journal of what paſſed at Marſeilles afforded ſeveral "undeniable inſtances[28]."

So direct a reference one might naturally think would have led Doctor Pye to a more careful peruſal of the Journal; and, as he was pleaſed to reply to the remarker, that he would have particularly endeavoured to invalidate the inſtances referred to. The method he took furniſhes a very good ſpecimen of his mode of reaſoning.

[27] Pye's Diſcourſe of the Plague, p. 44.

[28] Some Remarks on three Treatiſes, p. 63.

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"To leave no room for objection, ſays Doctor Pye, I ſhall take "notice, that a guard of quarantine died on board (Chataud's "ſhip) the 12th of June; but as this officer was no ways con- "cerned either in unloading or opening the goods, he could "receive no hurt from them; and beſides, this muſt have been "fourteen or fifteen days after the goods had been carried out "of the ſhip into the Lazaretto. Farther, ſix of their men "are ſaid to die at Leghorn; but the town of Leghorn was not "infected from hence, which would have been more likely, if "there had been any infection in the caſe, than that Marſeilles "ſhould afterwards be infected[29]."

The death of the quarantine officer was mentioned in order to leave no room for objection; but it ſtill may be objected that he has omitted the death of the ſailor on the 27th of May, and aſſerted, in contradiction to the Journal, that the former ſix ſailors died at Leghorn.

That Leghorn was more likely to be infected than Marſeilles, is a ſtrange notion. The ſhip had landed no goods there, nor had any intercourſe with the ſhore; for the phyſician who viſits the ſick on board, remains at a diſtance from the ſhip, in a boat; and the dead bodies are ſunk in the ſea. As to the circumſtance of the goods of Chataud's veſſel being all in the Lazaretto before the 12th of June, it is a ſuppoſition to be aſcribed to Doctor Pye's unacquaintance with matters of that kind; for it is impoſſible a ſhip which arrived the 25th of May, ſhould diſcharge the whole of her cargo, of which part was cotton, in two or three days. The deſpatch would have been miraculous, conſider-

[29] The Remarks lately publiſhed on three Treatiſes, and with ſome additional notes, Lond. 1722.

There is no author's name to the book, but I have given it to Doctor Pye, on the authority of a manuſcript note, which I found in my copy.

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ing the ſhip lay near two leagues from the Lazaretto, and was unloaded, and the boats navigated, by her own crew.

It did not occur to Doctor Pye that ſome time, previouſly to the ſhip's beginning to unload, is taken up in examination and other forms at Pomegue, and the council of health. The loſs of ſix men on the voyage, was an extraordinary circumſtance that required deliberation; and it appears, that on the 29th, after the death of the ſailor on board Chataud's veſſel, the council determined the quarantine of his cargo to be forty days, commencing from the landing of the laſt bale[30]: which was double the time uſually allotted for a ſhip with a clean patent. It is very probable therefore, that the ſhip did not begin to unload till after the 29th of May, and poſſibly had not finiſhed when the quarantine officer died the 12th of June, who muſt have been taken ill two or three days before.

It may be proper to remark here, that paſſengers with their baggage are landed at the Lazaretto in a day or two after the ſhip's arrival; and accordingly it appears, that Chataud's paſſengers were admitted into the town the 14th of June. Doctor Pye obſerves, that "from them nothing could be apprehended, "as they had undergone a ſtrict purification." But neither their quarantine, nor that of the paſſengers of the other ſhips, was ſo long as uſual under circumſtances of ſuſpicion; and the baggage of the paſſengers is more to be dreaded than their perſons.

The poſition Doctor Pye undertakes to eſtabliſh is, "that the "porters who died in the Lazaretto of Marſeilles received no hurt "or infection from the goods;" and this he demonſtrates in the following manner. "If any infection or infectious *aura* can "be ſuppoſed to be packed up, and brought in goods; ſuch

[30] Journal, p. 2.

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" infection or infectious aura muſt neceſſarily iſſue forth from
" them in greateſt abundance, and with greateſt force, at the firſt
" unpacking or opening of them; and as it muſt continue to
" fly off every moment, and be thereby continually diminiſhing,
" it is likewiſe certain that in a very few days the goods muſt
" be in great meaſure, if not intirely, cleared of it. Wherefore
" if the porters could have been infected from the goods at all,
" it muſt have been at the firſt opening of them: but even ac-
" cording to this Journal, the porters that firſt fell ſick were not
" taken ill before the 23d of June, whereas Chataud's ſhip ar-
" rived the 25th of May preceding; ſo that the goods of that
" ſhip, in purifying which the porter firſt mentioned was em-
" ployed, had been airing and purifying for 26 or 28 days before
" this accident happened; and it cannot be conceived that after
" ſo long a time they ſhould not have been entirely purged of all
" infection, or infectious aura, if any could have been brought
" with them. Or if it can be ſuppoſed, which I think impoſ-
" ſible, that any part of it might ſtill be left, it muſt withal be
" ſuppoſed ſo much leſs than at firſt, as not to be capable of do-
" ing, thoſe porters eſpecially, the leaſt hurt: to ſuppoſe other-
" wiſe, would be to argue that the ſame man who ſome days
" before had *received* and born, a very great quantity and force
" without any injury, could then be killed by a quantity and
" force infinitely leſs[31]."

In regard to the time requiſite for the complete evaporation of the infectious *aura*; in what proportionate gradation its activity is impaired by ventilation; and the ſpecific quantity required to produce effect on the human body, they are matters which I apprehend will not readily be admitted to be clearly and certainly known. But, without entering into this, I ſhall advert only to the facts produced by the Doctor, and endeavour to ac-

[31] Pye's Remarks, p. 53.

commo-

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commodate them to his own hypotheſis of the evaporation of the infectious aura.

That the firſt porters were not taken ill before the 23d of June is very true, but that the goods had been airing and puriſying for 26 or 28 days, has been ſhown above to be an error. The doctor alſo makes two other ſuppoſitions equally erroneous. The firſt, that the whole of the cotton contained in a number of bales is equally imbued with infectious aura; the ſecond, that all the bales of a ſhip's cargo are opened by the porters nearly about the ſame time. But as the cotton contained in theſe bales may not only have been collected from different villages at different times, but packed up under various circumſtances relative to the materials uſed for embalage, and the perſons employed in embaling, or ſteeving them; it may eaſily be conceived, how the cargo of a ſhip coming even from a place where the plague actually rages may be partially infected, or not infected at all. The warmeſt advocate for contagion never contended for every bale of a ſhip's cargo being equally infectious. As to the airing of the bales, it is a laborious and tedious proceſs. Where there is a conſiderable number, it takes up ſeveral days to open and arrange them; goods of different kinds muſt be diſpoſed ſeparately, accounts taken, and the cordage, &c. laid up with care where it may be found again. The laborious part of theſe operations is performed by the porters, who alſo tranſport the goods from the water ſide to the encloſure where they are to be aired: and as the days of quarantine do not begin to be reckoned till all the goods are landed, the porters for ſome days at the beginning are ſufficiently employed in receiving and arranging the cargo, that being the buſineſs requiring the firſt diſpatch. When theſe circumſtances are conſidered, it will appear no extravagant ſuppoſition, that ſome of the laſt opened bales of Chataud's cargo might ſtill retain enough of infectious aura to infect the porter the 23d of June.

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To ſet this retardment, almoſt unavoidable in the opening of bales, in a ſtill clearer light, it ſhould be obſerved that by the regulations at Marſeilles, all ſuſpected goods are ſubject to what is termed *ſereines*. That is, a certain number of bales are taken out of the hold, and being opened at both ends are expoſed to the air for two, three, or ſix days, by way of trial, in order to ſee if any ſigns of infection ſhould appear among thoſe employed in handling or moving the merchandize. When theſe have been aired, more or leſs, according to circumſtances, another parcel is opened and expoſed to ventilation, in like manner: ſo that, according to the burden of the ſhip, there may be ſeveral of theſe ſereines, each of ſeveral days duration. In this manner, independent of accidental impediments from winds and weather in ſending the goods from the ſhip, it may be ſuppoſed, were it at all neceſſary to make the ſuppoſition, that the porters, not only on the 23d of June, but on the 7th and 8th of July, were infected upon opening ſome new bales. As to the porter infected by Gabriel's goods, Doctor Pye thinks it impoſſible, becauſe the ſhip had been twelve days arrived in port; and the goods muſt have been eight or nine days airing and purifying:[32] had he been acquainted with the practice of the ſereines in quarantine, he would have been at no loſs to make the accident agree exactly with his notion of the infectious aura. But the Doctor has another argument in reſerve which renders all theſe computations ſuperfluous; for "according to the report of mer-" chants, *Frenchmen are not ſubject to the plague in Turkey*, and it " cannot be conceived that ſo ſmall a quantity of infectious air " as can be packed up, and brought in a bale of goods, ſhould " deſtroy them in France, or in an air and climate diſtant and " different; when the whole atmoſphere of the ſame infectious " air is found not to injure them in the very infected places, and " wherein it is allowed to be bred and generated[33]."

[32] The Remarks, &c. p. 54.

[33] Ibid. p. 53.

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The plain matter of fact as it ſtands in the Journal is, that ſix porters employed in purifying ſuſpected merchandize from the Levant, died of the plague; and their death was followed by that of the ſurgeon who attended them, and part of his family. Doctor Pye's account and explanation of the matter has been ſtated in his own words. It was upon his declaring he had never heard of perſons who received injury from unpacking goods coming from infected places, that he was referred to this Journal; and I ſhall conclude with his preface to the refutation of the inſtances he had been referred to. "The facts related in this Journal, ſeemed "to me to make ſo clearly againſt the modern notion of con- "tagion, that if this writer (the remarker) had not mentioned "them as undeniable inſtances in his favour, I ſhould not have "thought there had been any perſons here in England ſo dull "of underſtanding, or ſo much blinded with prejudice, as to "ſtand in need of having thoſe facts put into a more obvious "light: but having this occaſion, I ſhall conſider them more "largely than otherwiſe I ſhould have done; and ſhew that "the porters who died in the Lazaretto at Marſeilles, received no "hurt or infection from the goods."

We have ſeen the Doctor's demonſtration of this poſition; and I conceived his own preface, mutatis mutandis, might ſerve very well for my concluding remark on this ſubject.

The ſecond concluſion drawn from the abſtract account of the progreſs of the plague was, that about the ſame time the diſeaſe appeared in the Lazaretto, it was communicated to the town, probably, by contraband goods.

M. Deidier was of a contrary opinion; and what he ſays on the ſubject has been repeatedly urged by ſome Engliſh writers, without recollecting that the Doctor did not come to Marſeilles till

the 20th of September, and, from any thing that appears, could lay no claim to better intelligence than the magiſtrates of health and the town phyſicians, who had reſided in the place from the beginning, and who unanimouſly concurred in an opinion oppoſite to that of M. Deidier.

The Author of diſtinct Notions of the Plague, ſays, Doctor Deidier tells us that none of theſe goods (Chataud's) had been carried aſhore, from which he, the author, concludes they could not carry the plague to Marſeilles, were they ſuppoſed even to be infected. The French has it literally. "Although the merchandiſe was never delivered in the city, it was ſuppoſed that "ſome ſmall parcels belonging to the mariners, being clandeſtinely diſperſed there, &c." The Author of Diſtinct Notions of the Plague, proceeds to give M. Deidier's own words. "Some fancied that the little bundles or ſmall parcels of goods, "being clandeſtinely ſtole into the town, diſperſed the plague "all through it." It was upon this *miſtaken notion* and prejudice (c'eſt ſur ce préjugé qu'on croit) "that they believed, that every "ſick perſon infected every thing he but touched; and eſpecially "the apparel he wore, and the bed he lay upon.[34]

Upon comparing this tranſlation with the original,[35] it will appear that the words *miſtaken notion*, which, as they ſtand in the Engliſh, ſeem to have reference to the clandeſtine introduction of bundles or ſmall parcels, do not exiſt in the French. The prejudice mentioned there, if I am not miſtaken, refers not to the ſmuggling of ſmall parcels belonging to the mariners, but to the popular prejudice that the plague was communicated by contagion; a prejudice, which, in the ſequel, was adopted by M. Deidier himſelf.[36]

[34] Diſtinct Notions, &c p. 116.

[35] Traité de la Peſte, p. 482.

[36] Ibid. p. 356.

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M. Deidier, nor no man upon earth, could reaſonably affirm that no parcels were ſecretly conveyed into the town; it was a negative incapable of proof. He might be of opinion that the plague was not in that manner communicated to Marſeilles, but no where affirms that parcels were not ſmuggled. " Je n'ai ja- " mais pû me perſuader que cette peſte ne vînt que de quelques " perſonnes, ou de petites paquets de marchandiſes répanduës " furtivement dans Marſeilles."[37] This was his opinion; but in place of calling in queſtion whether ſuch parcels were really brought into the town, he has recourſe to another method; he ſhows the fact to be uneſſential, by endeavouring to prove the plague was in the city before the ſhip's arrival: how far he ſucceeded in this has been ſhown already in another place.[38]

The Author of Diſtinct Notions, however, draws the following concluſion from the tranſlated paſſage of M. Deidier's Letter. " So " as none of this merchandiſe was then brought into Marſeilles, " not ſo much as a ſmall bundle, as far as was ever known; we " have all poſſible reaſon to conclude, that the plague was not " brought into Marſeilles by the goods of Captain Chataud's ſhip, " which was the moſt ſuſpected."[39]

Doctor Pye obſerves, " That the peſtilence was begun in the " town, before the porters died in the Lazaretto; for the Journal " informs us, that the very next day after the ſurgeons had de- " clared it to be the plague in the Lazaretto, ſome perſons were " found and declared to have the plague in the town too; and " the reaſon why it was not declared ſooner was, that the ſur- " geon did not know the diſeaſe on account of the abſence of " eruptions." The Doctor, here, places the declaration of the

[37] Traité de la Peſte, p. 527.

[38] See before.

[39] Diſtinct Notions, &c. p. 116.

[40] See Traité de la Peſte, p. 8. on the Subject of Smuggling. Ibid. P. ii. p. 188.

plague

plague both in town and in the Lazaretto about the 8th of July; but the Journal might have informed him, that three porters died in the Lazaretto between the 24th and 26th of June, and though, for the very reaſon Doctor Pye aſſigns, the ſurgeon had not declared their diſeaſe to be the plague, the event ſhowed that he had from the beginning been miſtaken.

I keep all along to the Journal, becauſe I do not know whether the gentlemen who wrote in 1722 had an opportunity of ſeeing the Relation Hiſtorique. If we follow the account given there, the plague was certainly in the town the latter part of June; the firſt alarm being given about the 20th of that month, a few days after Chataud's paſſengers came out of the Lazaretto[41].

Two circumſtances are mentioned by Doctor Pye which might have had more weight, had he not betrayed ſuch inattention, or partiality, in the repreſentation of facts from the Journal to which he conſtantly refers. The firſt, that he was informed, by a perſon who had reſided part of the year 1719, and till July 1720, at Marſeilles, that the town had been alarmed for two months before the arrival of the ſhips, by the people dying in numbers, and very unaccountably; and that the diſeaſe appeared to be the ſame as proved to be ſo deſtructive afterwards. The ſecond, that he was credibly informed Doctor Mead had received a letter from M. Chirac, acquainting him the plague had been ſome time in the town of Marſeilles before the ſhips arrival, the 25th of May[42].

With reſpect to the firſt, it will be ſufficient to remark, that whether the perſon alluded to was a medical man or not, the phyſicians and hoſpital ſurgeons of Marſeilles, who muſt be ſuppoſed to have had, at leaſt, equal opportunities of information, knew nothing of this extraordinary mortality[43]; and that even M.

[41] Relation Hiſtor. p. 40.
[42] Pye's Remarks, p. 56.
[43] Relat. Hiſtorique, p. 427.

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Deidier who ſet himſelf profeſſedly to prove the exiſtence of the plague previous to the month of May; in the ſeveral inſtances he was able to collect, produces none of ſudden, or unaccountable death. With reſpect to the ſecond, it is little material whether Doctor Pye was rightly informed or not. It is notorious that M. Chirac, in a public Memorial tranſmitted to the phyſicians at Marſeilles, uſes all his rhetoric to perſuade them that the diſeaſe then raging was not the plague, but a malignant fever like what he himſelf had ſeen in the years 1709 and 1710: and what is more ſingular, this Memorial was poſterior to the report of M. Chicoyneau of the 18th of Auguſt, ſent to the regent[44]. If therefore ſuch a letter was written to Dr. Mead, it was only a proof of inconſiſtency in the Regent's phyſician[45].

I have

[44] Relat. Hiſtor. p. 120, 124.

[45] The opinion delivered by M. Chirac in the Memorial here referred to, was ſo exactly what the Montpelier phyſicians afterwards endeavoured to ſupport, and to which they laboured ſo aſſiduouſly to accommodate the whole of their obſervations, that I ſhall tranſcribe M. Chirac's words. "Tout bien conſideré après avoir lû & "examiné avec grande attention les diverſes relations qu'on a envoyées de Marſeille. "——J'ai jugé que cette maladie, quoique grande en elle-même, & très dangereuſe, "n'étoit qu'une *fiévre maligne très ordinaire* dans les conjonctures où elle eſt arrivée, "entierèment ſemblable a celles que j'ai vu regner en 1709 & 1710, revetuë des mêmes "accidents; que ce n'eſt point une peſte venuë du Levant, & portée dans le vaiſſeau, "qui en eſt arrivé dans le port de Marſeille; que ce n'eſt qu'une fiévre maligne cauſée "par la mauvaiſe nourritures du petit peuple de Marſeille, il n'en faut pas davan-"tage pour cauſer une maladie auſſi conſiderable." Relat. Hiſtor. p. 124.

The report ſent by M. Chicoyneau to the Regent, contains the following articles in which the town phyſicians and ſurgeons unanimouſly agree. "Que cette maladie "enlevoit ou faiſoit perir dans deux ou trois jours, quelque fois même dans deux ou "trois heures de tems, la plus grand partie de ceux qu'elle attaquoit. Que quand une "perſonne attaquée de ce mal dans une maiſon & famille en periſſoit, tout le reſte "en étoit bientôt infecté & ſubiſſoit le même ſort—Que cette maladie étoit uniforme "preſque dans tous les ſujects, de quelque condition qu'ils fuſſent, & caracteriſée "par les mêmes accidens, ſur-tout par les bubons, les charbons, les puſtules livides, "taches pourprées, &c." P. 115.

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I have perhaps taken very unneceſſary pains to point out ſo minutely the errors, or miſrepreſentations in point of fact which I think imputable to the Author of the Diſtinct Notions of the Plague, and to Doctor Pye. But conſidering them as the principal adverſaries to the doctrine of contagion, who appeared at that period in England; and that their books contained various

The Montpelier phyſicians, after viſiting the hoſpital and private houſes, confirm the truth of this account. " Nous avons trouvé dans l'hopital, environ quatre à " cinq cens malades, dont plus de deux tiers étoient attaqués du même genre de mal " caracteriſé ci-deſſus avec bubons, puſtules livides, tâches pourprées, & les uns " mourans, & les autres prêts a mourir, quoiqu'ils n'euſſent été portés que depuis " quelques heures, ou ſeulement depuis un jour ou deux." P. 115.

Upon comparing this report with M. Chirac's deciſion, after he had maturely deliberated on the ſeveral accounts received from Marſeilles, I cannot avoid remarking, that either M. Chirac's notion of the true plague was very different from that of other phyſicians; or that prepoſſeſſion in favour of an hypotheſis rendered him blind to as clear a deſcription of the diſeaſe as it was in the power of words to convey.

It may alſo be remarked, that the Montpelier phyſicians do not at once declare, in the manner the phyſician and ſurgeon of the galleys had done at the beginning of Auguſt, the diſtemper to be the plague, they term it a *kind of plague* (une eſpèce de peſte) a true peſtilential fever (une veritable fiévre peſtilentielle) aſſigning a ſingular reaſon for this laſt denomination, namely, that ſome recovered from it; as if the true plague proved always mortal.

The caution with which theſe gentlemen qualify their declaration, confirms a remark made before, that they had come ready prepared with M. Chirac's ſyſtem; and, to do them juſtice, they ſpared no pains in their obſervations afterwards to ſupport it; whether out of reſpect to the Regent's phyſician, or from unwillingneſs to retract their firſt opinion. But if the diſeaſe was not the true plague on the 18th of Auguſt, it certainly never aſſumed that type afterwards, and ſtill leſs upon their return to Marſeilles in September; for it had then begun to decline, no new ſymptoms had ſupervened, and, as greater numbers recovered; it was on that account, agreeably to their own notion in Auguſt, more remote from the plague.—It ſhould however, be remarked here that the Journal, (p. 20) which in this reſpect ought to be good authority, ſays, " The Montpelier phyſicians, in plain words, declared " it to be the plague."

That the Montpelier phyſicians came prepoſſeſſed with a theory, is further confirmed by the Relat. Hiſtorique, p. 352.

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arguments collected together, which are to be found diſperſed in numerous publications of thoſe times, I judged it better, by way of preliminary, to obviate their principal objections to certain facts which I conceive to be eſtabliſhed, before entering into the conſideration of the properties of contagion deduced from them. As to the declamation, and hypothetical reaſoning of thoſe gentlemen, I may refer to their own works, and to that of an anonymous writer who appeared in defence of Doctor Mead's ſhort Diſcourſe[45]; which, as I obſerved before, had, rather in an illiberal manner, been warmly attacked by both.

I ſhall conclude this chapter with a few paſſages from an eminent writer, who ſeems to think it probable that the Montpelier phyſicians ſent by the Regent, ſpoke on the introduction of the plague into Marſeilles from better information than that of thoſe of the city. "The fact of its being brought into "Marſeilles by infected goods, is poſitively aſſerted by the town "phyſicians, and as poſitively denied, upon a ſtricter examina- "tion, by thoſe ſent down by the Regent.—There never was "any plague better attended, nor better inquired into by phyſi- "cians than the laſt of Marſeilles, yet the facts (eſpecially thoſe "relating to its original cauſe) aſſerted by ſome of the town "phyſicians, are as poſitively denied by the phyſicians ſent "down by the Regent, and perhaps upon a more exact enquiry "and better evidence[46]."

I muſt beg leave to obſerve on the above paſſage, that no traces whatever are to be found of the more exact inquiry and ſtricter examination there alluded to. The report of the Montpelier phyſicians of the 18th of Auguſt, tranſmitted to the Regent, repreſents the aſſembly of phyſicians and ſurgeons convened by the ſheriffs at their requeſt, as concurring unanimouſly in opinion "non ſeulement ſur le caractere du mal, mais encore ſur les

[45] Remarks on the Treatiſes.
[46] Arbuthnot on Air, p. 175.

"cauſes

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" cauſes que l'avoient produit. Que ce mal n'avoit commencé à " ſe faire ſentir qu'a l'arrivée d'un vaiſſeau venu de Seyde " dont quelques marchandiſes derobées avoient eté tranſportées " furtivement & ſans precaution, dans l'une des Ruës de la Ville, " qui à été infectée la premiere[47], &c." The circumſtances upon which this opinion was founded, were never contradicted. The Montpelier phyſicians admitted the facts, but endeavoured to account for them independent of contagion; and M. Deidier, in particular, found it neceſſary, as mentioned before, to attempt proving the plague to have been in Marſeilles antecedently to the month of May. Doctor Arbuthnot had not an opportunity of peruſing the collection of French Memoirs in the Traité de la Peſte, which I believe was not publiſhed till after his death; he otherwiſe would moſt probably have ſeen matters in a different light; for, ſuperior to the narrow prejudices in favour of a ſyſtem, he impartially repreſents things as they appeared to him on both ſides of the quèſtion; and though he inclined to the opinion that the air was capable of producing the plague without infection, in a place where it is not an endemical diſeaſe[48]; he candidly acknowledges the evidence for its being produced alſo by contagion. " It is no leſs clear (ſays he) that the plague is alſo " brought into infected places by accident, and that it may, and " neceſſarily muſt, be ſpread by contagion. Marſeilles, by its " commerce with Egypt and Turkey, has been more frequently " infected with the plague than any city in Europe. There are " upon the records of that city, an account of twenty great " plagues. By the hiſtory of plagues, and particularly that laſt " of Marſeilles, the manner of ſpreading of the diſeaſe ſeems to " be gradual; at firſt ſeizing houſes, then ſtreets, quarters of " the town, and at laſt, like an univerſal conflagration, the " whole city[49]."

[47] Relat. Hiſtor. p. 117.
[48] Arbuthnot on Air, p. 180..
[49] Ibid. p. 188.

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The Plague at Marſeilles propagated by contagion—Thoſe who avoided improper communication, eſcaped the infection—Objections to theſe poſitions diſcuſſed.

THE fourth inference drawn from the Hiſtory of the Plague of Marſeilles, was "that the diſtemper was manifeſtly communicated from the ſick to the ſound by contagion.

It will be unneceſſary to beſtow much time in the illuſtration of this fact; the mere peruſal of the hiſtory itſelf, more eſpecially that of the progreſs of the plague from its commencement to the 21ſt of Auguſt, comprehending the firſt, and part of its ſecond period, according to the arrangement of the *Relation Hiſtorique*, will leave few doubts in the mind of an impartial reader.

The report tranſmitted to the Regent by M. Chicoyneau the 18th of Auguſt, repreſents the phyſicians and ſurgeons as unanimous in their declaration, "that when one perſon in a family "was attacked and died, the reſt ſoon underwent the ſame fate, "inſomuch that there were inſtances of families entirely de-"ſtroyed in that manner; and if any one of an infected family "fled to another houſe, the contagion accompanied him, and "proved fatal to the family where he had taken refuge[1]."

The firſt hoſpital opened for the infected, proved fatal to all the attendants[2]. The introduction of the plague into the Hotel Dieu, was traced to a woman received as a patient from the Rue de l'Eſcale, the ſtreet where the diſtemper firſt broke out. Two of the nurſes who aſſiſted at her reception, and the matron who

[1] Relat. p. 115. Journal, p. 19.

[2] Ibid. p. 103.

changed

changed her linen, were taken ill next day, and died after a few hours illneſs. From them the contagion ſpreading with dreadful rapidity, deſtroyed phyſicians, ſurgeons, apothecaries, confeſſors, and all the other officers and ſervants of the houſe, with the whole of the poor in the hoſpital, including above three hundred foundlings [3]. The prieſts and monks who attended the infected ſuffered in the ſame manner as the medical aſſiſtants, but many of them caught the infection by unguarded intercourſe before the diſtemper was publickly avowed [4]. Laſtly, of two hundred and thirty galley-ſlaves, employed in going into the infected houſes, and in burying the dead, two hundred and twenty periſhed in the ſpace of ten or twelve days [5]. It were ſuperfluous to collect a greater number of particular inſtances, where the whole tenor of the hiſtory concurs to eſtabliſh the fact in queſtion.

But the progreſs of contagion is moſt eaſily traced in the beginning of a peſtilence, before the diſtemper has become ſo

[3] Relat. p. 108.

The like mortality happened in the Lazaretto of the Conſolation at Genoa, in 1667. "Quando poi nel meſe di Giugnio per la gran moltitudine che riempi "tutto il Lazaretto, reſto infetta l'aria allora anche li netti reſtarano da queſta pece "contaminati. Tre ſpeziali, loro aiutanti, monitionero con ſuoi figli, Cuoco, e Gar- "zoni di Cucina, Facchini, e Lavandaie di Caſa, in ſomma non ve ne reſto uno, "tutti furono paſto della gran beſtia; talche in un Lazaretto la diſtintione de' netti e "brutti, pare poſſa differire, ma non impedire la morte."

Antéro Maria, Lazaretti di Genoa, p. 458.

At length, in the month of June, when the air became infected from the multitude that crowded the Lazaretto, thoſe reckoned clean, without cloſe communication with the ſick, were mortally infected. Three apothecaries, their aſſiſtants, the houſe ſteward with his ſons, a cook, ſcullions, porters and waſher-women belonging to the houſe; in ſhort, not one remained, all falling victims to the devouring monſter: the diſtinction of clean and foul was loſt in the Lazaretto, or in reſpect to thoſe ranked in the firſt claſs, death was only retarded, not prevented.

[4] Relat. p. 188, 192, 196, 198, 211, 216. Journal, p. 42.

[5] Ibid. p. 234, 245. Journal, p. 22, 50.

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general as to render it impoſſible, in a promiſcuous intercourſe, to determine when or where the infection was contracted. The hiſtory of the two firſt months furniſhes marked inſtances of contagion; and the courſe of the diſeaſe in July and beginning of Auguſt, ſtands diſtinguiſhed from that of an incipient ordinary epidemic; which ſhows itſelf nearly at the ſame period in different quarters of a town, that have little or no intercourſe, and till towards the height of the epidemic, ſeldom more than one or two of the ſame family are found ſick. In ſome epidemical diſorders, as catarrhal fevers, numbers of the inhabitants in diſtant ſtreets are ſuddenly attacked at once. The plague commences not in this manner.

When M. Deidier contends that the ſpreading of the plague is no proof of its being contagious, but only of its being epidemical, it ſhould be recollected that he is to be underſtood as referring not to the beginning or firſt period of the plague at Marſeilles, which he had not ſeen, but to that advanced ſtage in September when it drew near its decline. At that time it certainly was epidemic; but without ſuppoſing a general infection of the air, the great number of ſick, and the multiplied fomites diſperſed every where, may account for the ſpread of the diſeaſe by contagion.

Another objection of that gentleman drawn from his own eſcape, and that of ſeveral other medical aſſiſtants who had courageouſly expoſed themſelves in the moſt dangerous ſituations, would have more weight, were it contended that all ought to be equally ſubject to infection, if the plague be ſuppoſed contagious. But when he talks of himſelf and his aſſiſtants eſcaping unhurt, he omits mentioning thoſe whom he had ſeen periſh in the exerciſe of the ſame offices about the ſick[6].

Again, when M. Deidier aſſerts, that if there exiſted an atmoſphere of infectious corpuſcles, it would be impoſſible for any

[6] See Traité de la Peſte, p. 282, 308, 487, 351.

one,

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one, however robuſt, to eſcape from that of a peſtilential hoſpital; whereas he himſelf, as well as others, who daily paſſed ſeveral hours together in the hoſpital for ſeveral weeks, received no manner of injury; it ſhould be remembered, that many more in ſimilar ſituations periſhed[7]. The Hotel Dieu, formerly mentioned, furniſhes an example, and ſeveral others have already been cited. But it ſhould alſo be remarked, that the condition of the hoſpitals when the Montpelier phyſicians practiſed, was widely different from that of the Hotel Dieu and the temporary hoſpitals of the former period. Thoſe gentlemen arrived at Marſeilles about the 20th of September, in time to behold a part only of the horrid ſpectacle. Till then the utmoſt efforts of the magiſtrates, amidſt many other avocations, had with infinite difficulty effected the removal of heaps of corſes accumulated in the ſtreets. But, at that time, order had begun to be re-eſtabliſhed by the vigorous meaſures of M. de Langeron; the city was in a great meaſure cleanſed of its filth, and the wiſeſt ſteps taken to en-

[7] An Engliſh author who wrote in 1665, ſays, "I have ſeen ſome ſit at the doors "where the houſes have been ſhut up, and have heard them ſpeak (I cannot ſay "reaſon) as if there were no ſuch thing at all as that which people fear and call "infection, they ſay the ſcripture does not ſay the plague is infectious: why nei-"ther doth it ſay, that whoredome breeds the pox. They will tell you, they and "many more have been with the ſick and kept them company, and eat and drank, "and lay with them, and yet themſelves never ailed any thing: they may as well "argue that many have had the plague, blotches, blains, carbuncles, and the tockens, "and recovered, and therefore the ſickneſs is not mortal. When a philoſopher "came to a heathen idol's temple, one of the prieſts ſhowed him a table of the "names of ſuch perſons that in extremity of tempeſts and other dangers made vows "to the deity, and, eſcaping danger, came ſafe to land; but, quoth the philoſopher, "can you ſhew me how many made their vows and yet periſhed? And here a "queſtion may be aſked, how it comes to paſs that ſuch miſchievous perſons (as "wickedly diſſeminate the plague) eſcape themſelves? And whence it is that nurſes, "ſearchers, buriers, and ſuch as miniſter about the ſick, are free from infection? "To which I anſwer, that, perhaps, may not be always true, the pitcher indeed "goes often to the well, but at laſt may come home broken—ſurgeons, nurſes, &c. "have died." A brief Treatiſe of the Nature, &c. of the Peſtilence, by W. Kemp, M. A. Lond. 1665.

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courage the returning confidence of the people. The hoſpitals, however, could not be got ready before the fourth of October, that is about the beginning of the third period of the peſtilence, when, beſides the reſtoration of police, the diſeaſe itſelf was growing daily milder, and tending evidently to its decline[8].

The objection in ſhort of M. Deidier is reduced to this, "that "were the plague communicated by contagion, all thoſe that "expoſe themſelves muſt neceſſarily be infected." An argument which Aſtruc has very ſatisfactorily refuted[9].

M. Chicoyneau in like manner contends, that if the peſtilential leven was a real poiſon, it muſt conſtantly, like corroſive ſublimate, produce the ſame effect on all conſtitutions; but being poiſonous only in regard to the prediſpoſition of the ſubject it

[8] Relation Hiſtorique, p. 201, 299, 303, 308.

[9] Traité de la Peſte, p. 137.

A profeſſed aſtrologer, in 1665, obſerves, "That if the peſtilence be infectious "and really catching in itſelf, it muſt be ſo equally to all perſons that approach it, "or that it approacheth; or elſe it muſt be infectious to ſome particular perſons "only. If it be infectious to all perſons, or catching to all alike; then all perſons "that come into the ſight, or within the ſcent of it, muſt neceſſarily be ſubject "unto it. If not infectious unto all, but unto ſome particular perſons only; I ſay "then it ought not to be deemed or eſteemed infectious at all; at leaſt, not any "more infectious than are all other diſeaſes, viz. ſmall-pox, ſcurvy, pleuriſy, ague, "gout, &c. Since (though the notion of infection be laid aſide) there is not a "perſon born into the world that hath not at ſome time or other in his life (as his "nativity ſhall truly ſhew) ſome one diſeaſe or other. Never was any perſon ſub-"ject to violent diſeaſes, as plague, &c. but had a violent nativity to ſhew it, and "e contra." London's Deliverance predicted, p. 25, by J. Gadbury, Lond. 1665.

Had the Montpelier phyſicians adopted the principle of the aſtrologer, it would have ſaved them a world of pains. By the way as this book of Gadbury's was licenſed in the month of Auguſt, when the plague at London was increaſing faſt, it ſhows that the order of 1603, ſtrictly prohibiting all eccleſiaſticks and others from publiſhing an opinion that the plague was not infectious, or that it was a vain thing not to reſort to the infected, &c. &c. had become obſolete; for Gadbury expreſsly declares it is not contagious, and that it is madneſs to fly from it. Certain neceſſary Directions, &c. London, 1638. Orders by his Majeſty, (Jac. 1.) Art. 16.

attacks,

attacks, its effects will be more or leſs violent as the conſtitution happens to be differently diſpoſed: hence in the ſick of his fifth claſs, it operates very feebly, owing to the defect in the conſtitutional prediſpoſition [10]. He admits the great mortality of perſons employed about the infected, but thinks it may be accounted for independently of contagion [11]. The anſwer to all this has been anticipated; and the whole being hypothetical, unſupported by new facts, it will ſuffice at preſent to have barely mentioned his argument.

The fifth article of facts ſuppoſed to be eſtabliſhed by experience at Marſeilles, was, that thoſe who ſecluded themſelves from all communication with the ſick, or with perſons and goods which had been expoſed to infection, were not attacked by the diſeaſe.

In proof of this the Traité de la Peſte furniſhes ſeveral authentic certificates, from which I have ſelected two by way of ſpecimen. The firſt, given by the Biſhop of Marſeilles, "Certifions "& atteſtons à tous ceux qu'il appartiendra, que pendant la "déſolation de Marſeille en 1720 & 1721, la peſte n'a point "pénetrée dans les communautés religieuſes qui n'ont eu aucune "communication avec les perſonnes du dehors, & qui ont uſé "des précautions néceſſaires pour s'en garantir, & que le com-"munication ne fut plus à craindre dans cette ville en 1722, "par le ſoin que l'ont eu de renfermer exactement tous les ma-"lades dans l'hopital de la charité dès lors qu'il y'en avoit "quelqu'un." The ſecond is given by Le Chevalier Mouſtiez, firſt ſheriff of Marſeilles in the years 1720, 1721, and 1722. "Certifions que lors de la derniere contagion dont cette ville "fut attaquée pendant les ſudites années, il avoit été générale-"ment reconnu que la peſte ſe contractoit par la communication "des perſonnes, l'uſage & l'etat des étoffes de lain, cotton, &

[10] Traité de la Peſte, p. 305.

[11] Ibid. p. 326.

"autres

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" autres également ſuſceptibles de l'impreſſion du venin; etant " prouvé par l'experience que les familles qui s'etoient enfermées " & qui n'avoient point communiqué au dehors, ſingulierement " les monaſteres des filles, avoient été garanties de ce fleaux, " lequel ne s'étoit introduit chez quelques uns que par la com- " munication avec de perſonnes étrangeres[12]."

The next teſtimony I ſhall produce, is that of M. le Chevalier de Langeron, who was actively employed from the commencement to the termination of the plague, firſt as a commodore of the gallies, and afterwards from the 12th of September 1720, as governor of the town of Marſeilles and its dependencies. He acceded to his government in the midſt of univerſal deſolation; and to his wiſe and active adminiſtration, even the Montpelier phyſicians join in paying the higheſt encomia, though the ſucceſsful meaſures he purſued were directly oppoſite to the ſyſtem they had adopted. The paſſage I tranſcribe is from a letter to the miniſter of ſtate, in anſwer to an article of a Memoire of M. Chirac, who perſiſting in his firſt ideas, propoſes ſix articles for deliberation, moſt of which ſerve only to ſhow the prevalence of an hypotheſis over the cleareſt evidence[13]. " Il y'a encore " (ſays M. de Langeron) d'autres perſonnes qui peuvent penſer, " comme le mémoire; ce ſont gens qui ont imaginé un ſyſtême " nouveau ſur la peſte, & qui diſent contre l'experience de tous " les ſiécles, qu'elle ne ſe communique point. Quelque con- " fiance qu'ils méritent ſur tout autre choſe, il ſeroit dangereux " de les croire ſur celle-ci, puiſque ſelon eux, les précautions " qu'on prend pour éviter la communication, ſeroient inutiles " & que ce ſeroit expoſer tout un peuple à une perte certaine, ſi " l'on n'en prenoit point. Nous avons remarqué que ceux qui " ſe renfermoient ſains chez eux, en ſortoient ſains; il ne faut " pas d'autre preuve pour détruire leur opinion, & il eſt inutile " de s'étendre d'avantage là deſſus[14]."

[12] Traité de la Peſte, p. 150, 153.
[13] Ibid. p. ii. p. 130.
[14] Ibid. p. ii. p. 134.

Oppoſed

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Oppoſed to theſe teſtimonies I find two paſſages in books of acknowledged authority, which merit conſideration. The Journal ſo often cited ſays, " and what is unaccountable, thoſe who have " ſhut themſelves up moſt ſecurely in their own houſes, and are " the moſt careful to take in nothing without the moſt exact " precautions, are attacked there by the plague, which creeps in " no one knows how[15]."

The above paſſage did not eſcape the author of Diſtinct Notions of the Plague, who produces it as an argument againſt contagion; and immediately ſubjoining another extract which recites the number of ſecular as well as regular clergy who had periſhed, adds, " and therefore it was very manifeſt, that the plague is " cauſed by the air, ſince theſe religious may be ſuppoſed as truly " ſecluded from the world, as human art or human fears could " contrive[16]."

From this manner of ſtating the caſe, one would think that all thoſe religious had been cloſe ſhut up, without any communication with perſons without doors, and this was certainly intended by the author; but it will be found upon looking into the Journal, in the beginning of the very paragraph cited, that the greateſt part of them are repreſented as martyrs who had meritoriouſly expoſed themſelves. " But theſe ſacred labourers are almoſt all " taken away by death, in the time of ſo great a mortality, when " their help is moſt wanted[17]. Of the twelve different orders mentioned on this occaſion, the grand Auguſtins only are ſaid to have kept in their convent.

But ſuppoſing the Auguſtin convent to have been actually ſhut up, and in that ſtate infected; it would by no means invalidate the inſtances brought of the preſervation of the convents, the

[15] Journal, p. 41.
[16] Diſtinct Notions, &c. p. 66.
[17] Journal, p. 42.

certi-

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certificates concerning which were granted deliberately after all was over; whereas the Journal written from day to day, marking tranſactions rapidly as they occurred, the author, amidſt various other affairs, had not always leiſure or opportunity to examine minutely into circumſtances. It is in this light I am inclined to conſider the houſes being infected which took in nothing without the moſt exact precautions; and the rather becauſe I met with ſeveral inſtances of the like kind at Aleppo, in houſes of the Chriſtian and Jewiſh natives; but in the ſequel it generally appeared there had been ſome improper communication carried on by the domeſtics, unknown to the family at the time.

The teſtimony of the *Relation Hiſtorique* is more explicit, "that in the height of the peſtilence the infection penetrated "into places which till then had remained inacceſſible; that mo- "naſteries and houſes ſhut up in the moſt exact manner, were "no longer places of ſecurity." This was aſcribed to the air itſelf being infected, by the peſtiferous effluvia ariſing from the numerous ſick, and the heaps of putrifying dead bodies, which every where filled the ſtreets[18].

That the atmoſphere, in a city ſo dreadfully circumſtanced as Marſeilles, may become ſo highly tainted as to convey the plague into houſes ſhut up, cannot conſiſtently be affirmed to be impoſſible, by thoſe who hold mediate contagion; and the concurrence of circumſtances at that period in Marſeilles, renders it highly probable ſuch accidents happened. But in general, the peſtiferous effluvia once emitted into the air, do not appear to operate at any great diſtance from their ſource; and M. Deidier aſſerts, that two monaſteries (from their ſituation, one near a burial ground, the other near a peſt-houſe) very dangerouſly ſituated, remained nevertheleſs untouched, which he thinks an argument againſt infection being conveyed by the air[19].

[18] Relation Hiſtorique, p. 169.

[19] Traité de la Peſte, p. 355. ſubjoined to the Diſcourſe of M. Deidier, is an account

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" Let it be conſidered, ſays Doctor Arbuthnot, to what a large " extent ſome bodies will affect the air; for example, the ſnuff " of a candle:—the perſpirable matter of leſs than 3000 human " creatures would make an atmoſphere 71 feet high, over an acre " of ground, in 34 days. This perſpirable fluid is to air in den- " ſity, perhaps as 800 to 1; therefore if you extend the 3000 " people over an hundred acres of ground, there will remain eight " inches, the greateſt part remaining unblown off, and ſpread " with the infinite tenuity of odorous effluvia, will infect the " whole air of that city." [20]

Ingenious calculations of the quantity of animal ſteams emitted in a given time, and of the ſpace they would occupy in the atmoſphere, when applied to peſtiferous effluvia, will perhaps be found more ſpecious than juſt. There is no neceſſity for ſuppoſing theſe effluvia of the ſame denſity with the perſpirable matter; and, beſides their being ſubject to ventilation, they may be variouſly modified, perhaps rendered innocuous even in a ſtagnant ſtate, by the admixture of air.

count of ſome religious infected in convents at Toulon, that were ſhut up; but as circumſtances ſtand in the narrative, nothing can be concluded in contradiction to the certificates from Marſeilles.

[20] Arbuthnot on Air, p. 189.

Suppoſe, " ſays Doctor Pye, that a ſound perſon ſtanding a minute at three or " four yards diſtance from the ſick, can have received a quantity of peſtilential mat- " ter ſufficient to produce the ſickneſs, it muſt be reckoned that twenty times as much " at leaſt had been emitted in the time as had been intercepted and received into " that perſon's body; ſo that within the ſpace of an hour, a ſick perſon muſt emit " enough of peſtilential matter to infect 1200 others; and, within the ſpace of 24 hours, " a quantity ſufficient to infect 28,800, &c." Diſcourſe of the Plague, p. 56.

To this it was replied, by the Remarker, " Theſe impertinent calculations con- " clude no more againſt a ſick perſon being infectious, than they would againſt a roſe " having a ſcent; for a roſe will have emitted matter enough for as many perſons to " have ſmelt, as here a ſick perſon is ſuppoſed capable of infecting, and was the " odour venemous and deadly, as is ſaid of ſome poiſons, as many perſons would be " killed by it." Remarks on three Treatiſes, p. 65.

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But admitting the poſſibility of the air, at certain times, being replete with peſtiferous effluvia, and capable of conveying them in an active ſtate to ſome diſtance, the infection of houſes ſhut up, may be ſatisfactorily accounted for without recurrence to the ſuppoſition of miaſmata floating in the atmoſphere.

The people of Marſeilles, as it has almoſt invariably been obſerved in the beginning of a peſtilence, unwilling to give ear to a truth of dreadful conſequence, permitted themſelves to be deluded by various reports; they continued to flatter themſelves that the diſtemper was not the plague, after all rational doubt was over;[21] and ill judged police, on the part of the magiſtrates, favoured the popular deception.[22] The ſchools and college were ſhut early in Auguſt, but it was the 21ſt before orders were iſſued for ſhutting up the churches; and on the 16th of that month, the magiſtrates were reluctantly obliged to indulge the ſuperſtition of the populace, in making the annual proceſſion on the feſtival of St. Roch, which occaſioned a moſt dangerous concourſe.[23]

The plague thus diſſeminated before the people were properly alarmed, and the ſequeſtring themſelves in their houſes being long delayed, it may reaſonably be preſumed that many ſhut up with the infection lurking in their family; and public diſorder in-

[21] Relat. Hiſtor. p. 132. Journal, p 7.

[22] Ibid. p. 12, 112.

[23] In the plague of Moſcow in 1771, the populace, who had been prohibited from paying the accuſtomary laſt duties to the dying and the dead, roſe tumultuouſly in a religious frenzy, and broke into the hoſpital, and other places where the infected were lodged; reſtored the religious ceremonies about the ſick; kiſſed their departing friends; and would not permit the bodies to be buried, as before, without the city. The inſurrection was quelled in a few days, but much miſchief was produced by this concourſe of a diſtracted people. "Tot hominum ſanorum, ægrotorumque con-" curſu, contagio aucto, mille & ducenti ultraque ſingulis diebus moriebantur." The inſurrection happened the 15th of September, in the firſt part of which month the mortality from 700 daily, roſe gradually to 1000. Merten's Obſerv. p. 84. Vindibon. 1778.

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creaſed ſo faſt, when once the popular apprehenſion aroſe, that whether thoſe of better rank ſequeſtered themſelves in town, or fled to their *Baſtides*, it became extremely difficult to procure even the neceſſaries of life.[24] Theſe circumſtances ſo unfavourable to the ſtrict maintainance of the precautions requiſite in ſhutting up, left it in the power proportionally of few, to protect themſelves in that manner. The infection may therefore, in many inſtances, have been contracted previouſly to confinement, or have pervaded through the neglect of regulations not eaſily preſerved inviolate, in the times of dearth and univerſal diſorder. I ſay this may be readily conceived, without ſuppoſing the air generally tainted: a ſuppoſition irreconcilable to the preſervation of the convents, as well as to the declaration of M. de Langeron, "that thoſe who "were found when they ſequeſtered themſelves, came out from "confinement in good health."

M. Deidier, indeed, deſcribes the inhabitants of Marſeilles, as univerſally ſhut up, when he arrived there the 20th of September, and urges it as an argument againſt the plague being ſpread by contagion. "Lorſque nous avons vu tomber juſqu'à cinq "cens malades par jour dans tous les différens quartiers de la ville, "chacun étoit renfermé dans ſa maiſon, & perſonne ne commu- "niquoit. Eſt-il vraiſemblable que tant de perſonnes diſperſées "euſſent communiqué avec des peſtiférés, ou porté des hardes "peſtiférées, avant que de s'enfermer? C'eſt pourtant ce qu'il fau- "droit néceſſairement ſuppoſer ſi le mal ne ſe prenoit que par "contagion."[25]

That every one was ſhut up in his houſe, and no one communicated with another, at a time when five hundred fell ſick daily, is a hazarded aſſertion, of the truth of which M. Deidier could not poſſibly be well aſſured. But ſuppoſing it for a moment to

[24] Relat. Hiſtor. p. 89, 135.

[25] Traité de la Peſte, p. 525.

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be ſtrictly true, were the people then taken ſick, the inhabitants of houſes which till that time had remained free? Was it in the nature of things, at a time when order only began to take place, that people ſhould be generally ſhut up in ſound houſes? or was it not more probable, conſidering the dreadful mortality which had preceded, that many of the then ſequeſtered families were in houſes which had already been viſited? The Hiſtorical Relation, and the Journal, may ſerve to illuſtrate theſe points.

That ſeveral perſons were attacked by the plague who had no ſuſpicious communication, is another aſſertion eaſily pronounced alſo; but, conſidering the condition of Marſeilles, it was no eaſy matter for any one, if not ſtrictly ſhut up, to be certain he had not inadvertently expoſed himſelf. The fact aſſumed by M. Deidier is almoſt of impoſſible proof, in reſpect to any perſon living at large in an infected city. He himſelf might ſay, that in viſiting the ſick he was daily expoſed to infection; but the moſt cautious man upon earth, if not ſequeſtered, could not declare with equal confidence, that he was ſure of having had no dangerous communication.

As the certificates relative to the preſervation of the convents at Marſeilles ſtand uncontradicted, the fact may be conſidered as admitted. But endeavours have been made to ſhow that their preſervation was owing to other cauſes, and not to the carefully avoiding communication. M. Deidier aſcribes it to their being ſupplied with good bread. "Ce n'eſt pas tant à mon avis, parce "qu'on s'y eſt garanti de la contagion en demeurant enfermés, que "parce qu'on s'y eſt toujours nourri d'excellent bled, comme je "m'en ſuis informé par moi même." The preſervation of the poor's-houſe (la charité) he aſcribes to the ſame cauſe.[26] This hoſpital it ſeems had uſed precaution, and remained exempt from the diſtemper in the height of the plague. About the end of Sep-

[26] Traité de la Peſte, p. 355, 528.

tember

tember it was found expedient to remove the poor to another place, and convert the *charité* into a peſtilential hoſpital.[27] Some, however, of the paupers, were retained to nurſe the infected; almoſt all of whom, according to M. Deidier, periſhed. "Ceux "de ces pauvres miſérables qui furent appliqués au ſervice des "peſtiférés ſuccomberent preſque tous, non par l'infection de l'air, "car il en ſeroit arrivé de même auparavant, mais par les mauvais "alimens, & par la mal propreté qui donnerent lieu a l'epide-"mie."[28] He had remarked before that, "L'hopital de la cha-"rité qui regorgeoit de monde jouit pourtant d'une parfaite ſanté "tant que la bonne nourriture dura;" from which one would be apt to think, that when no longer ſupplied with good proviſions it was attacked with the plague. But this appears not to have been the caſe; for the *charité* remained untouched at the time the poor were removed from it, and it was thoſe left behind to ſerve in the peſt-houſe who were afterwards infected. In aſcribing the preſervation of that hoſpital to wholeſome aliment, M. Deidier acts conſiſtently with the ſyſtem he had adopted of the cauſe of the diſtemper; but that he ſhould think the air of the wards, when the hoſpital came to be crowded with infected patients, exactly the ſame as before the hoſpital was converted into a peſt-houſe, is beyond my comprehenſion.

Another cauſe aſſigned for the convents remaining exempt from the plague, is the tranquillity of mind which the females derive from the imaginary ſecurity of their ſituation; the total abſence of terror and dread of infection. "Les monaſteres des filles doi-"vent être plus exempts de cette maladie, parce que les filles étant "enfermées, la reflexion qu'elles font ſur leur clôture, qu'elles "regardent alors comme un rempart aſſuré contre la communica-"tion de la peſte, leur procure une joie & une tranquillité d'eſprit "qui les met à l'abri de tous les déſordres de la crainte & de la "frayeur."[29]

[27] Journal, p. 60.
[28] Traite de la Peſte, p. 355.
[29] Ibid. p. 174.

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The extravagant effects aſcribed to fear in the production of the plague, have been more than once adverted to before, and have been very well expoſed by M. Deidier, in the refutation of Gerſtman's Syſtem in the Tumulus Peſtis: though he takes no notice of Meſſrs. Chicoyneau and Verny, whoſe notions, on that head, were pretty much the ſame with Gerſtman's.[30] Referring to that refutation, I ſhall only remark that the imaginary tranquillity in the nunneries, is the ſuppoſition of a perſon who had never experienced what it is to be ſhut up in times of peſtilence. The apprehenſion that ſome one may have caught the infection before the doors were ſhut; the reflection that the imprudence or neglect of ſome domeſtic may ſtill introduce it; the anxious attention to the regulations; the alarm produced by every incidental indiſpoſition; and the ſympathetic feelings of humanity for the diſtreſſes of others, are circumſtances incompatible with that unruffled ſtate of tranquillity and confidence, which are ſuppoſed to ſecure the conſtitution againſt infection.

CHAP. IV.

Decline of the Plague at Marſeilles—Certain Forms of the Diſeaſe, under the Advantages of regular medical Attendance, not leſs mortal than in the former Periods of Diſtreſs and Anarchy—Illiberality of the Montpelier Phyſicians—Decline of the Plague owing to a Change in the Conſtitution of the Air.

THE ſixth and laſt article of facts ſuppoſed to be eſtabliſhed by the Hiſtory of the Plague at Marſeilles was, that the plague, advancing rapidly in Auguſt, raged through that month and September; declined faſt through October and November; and in-

[30] Traité de la Peſte, p. 349. See alſo Relat. Hiſtor. p. 399.

ſtances

ſtances in the middle of winter were ſo rare, that it was ſometimes thought to have ceaſed. That it revived in the ſpring 1721, but did not ſpread; and vaniſhed entirely after the ſummer ſolſtice of that year. CHAP. IV.

The hiſtory of the increaſe and height of the peſtilence affords a variety of curious facts, ſome of which will be produced hereafter in illuſtration of the properties of contagion; for others I muſt refer to the hiſtory itſelf, and ſhall confine my remarks in this place to the decline of the diſtemper in October; its progreſs in the winter; its revival in March, and its final extinction in June or July 1721. At this laſt period the Relation Hiſtorique terminates; the Journal, ſo often cited, brings matters no further down than the 10th of December, 1720.

The decline of the plague in October, was almoſt as rapid as its increaſe had been in Auguſt. Perſons who had kept retired at home, began about the middle of the month to appear in the ſtreets, which were then become more paſſable; the dead bodies, filth, and ſtuff thrown out from infected houſes, that had ſo long rendered them horribly offenſive being removed. Towards the end of the month, the diſtemper ſeemed to ſtop ſhort, five or ſix days elapſing without any freſh accidents.[31]

At the time the plague viſibly declined in the quarters where it had raged in the autumn, it increaſed in that of St. Ferriol, one of the moſt open and well aired in the city, and inhabited chiefly by people of better rank. And notwithſtanding the medical attendance, and the advantage of every other convenience, the diſtemper in that quarter purſued its uſual progreſs.

The ſame forms of the diſeaſe, that proved ſo fatal in the former periods, ſtill proved fatal, though regularly treated by thoſe very

[31] Relat. Hiſtorique, p. 304, 308.

phyſicians

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phyſicians who with ſuch confidence had aſcribed the preceding mortality to the want of proper medical aſſiſtance, and the ſcarcity of the neceſſaries of life.

" Le mal ne ſe repand plus avec la même rapidité mais il exerce " toujours la même violence ; on voit toûjours des morts promptes, " mêmes ſymptomes, même malignité . . . . On meurt à preſent " avec des medecins, comme on mourroit auparavant ſans medi- " cins . . . . Quoique nous diſions que le mal exerçoit toûjours la " même violence, cela n'étoit pourtant pas general. Le plus grand " nombre de ceux qui furent attaqués dans ce troiſième periode " n'avoient qu'un mal très benin & très leger." [32]

In regard to the forms arranged under the firſt and ſecond claſſes of Meſſrs. Chicoyneau and Verny, they themſelves declare, that in the firſt they only had recourſe to cordial and ſudorific remedies, which proved of no ſervice, or at beſt ſerved only to keep back the fatal period a few hours ; and that it was very rare to ſee any of the ſick in the ſecond claſs eſcape, though they ſupported themſelves a little longer than thoſe of the firſt : [33] and this they acknowledge brought them at firſt to join in the generally received opinion of the malignity of the diſtemper being beyond the reach of medecine. But having met with ſome particular caſes wherein remedies were of ſervice, " there is room to preſume (continued they) " and we are but too much convinced of it by fatal experi- " ence, that the deſertion and inactivity of the greateſt part of the " people who might have given aſſiſtance, that the want of nou- " riſhment, of remedies and attendance, that the fatal prejudice " of being ſeized by an incurable diſtemper, that the deſpair, in " ſeeing one's ſelf abandoned without any relief ; we ſay, we " are well convinced that all theſe cauſes have no leſs contributed " than the violence of the diſeaſe, to the ſudden deſtruction of

[32] Relat. Hiſtor. p. 299, 303.

[33] Traité de la Peſte, p. 225, 226.

" ſo

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" ſo great a number of the ſick, not only of this claſs but of the " others; ſeeing that in proportion as this mortal fear of the " contagion is diminiſhed, and that one is mutually aſſiſted, that " the hopes and courage of the people are returned; that, in one " word, good order is re-eſtabliſhed, by the authority, firmneſs " and vigilance of the Chevalier de Langeron, &c. the progreſs " and violence of this terrible ſcourge has been obſerved to di- " miniſh inſenſibly, and we have been more ſucceſsful in curing " the infected."[34]

When theſe gentlemen affirm that the want of aliment, remedies, and attendance, together with the other cauſes above recited, contributed, not leſs than the virulence of the diſeaſe, to the ſudden deſtruction of ſo great a number of the ſick of the firſt as well as the other claſſes; might it not reaſonably have been expected that when aliment, remedies, &c. were ſufficiently ſupplied; when the miſtaken notion of incurability was baniſhed by the undaunted attendance of phyſicians, who aſſured their patients the diſeaſe was of all others the leaſt dangerous;[35] that one half, at leaſt, of the ſick of the firſt and ſecond claſſes would, under ſuch favourable circumſtances, have recovered? Yet, almoſt all periſhed; medicine only prolonged life a few hours, and ſometimes was ſuſpected of abridging it. Was then a ſeeming ſucceſs in an inconſiderable number of inſtances, ſufficient to juſtify ſo raſh, and, as it reſpected the Marſeilles phyſicians, ſo illiberal a declaration.[36]

It appeared, ſays the Hiſtorical Relation, " que dans le troi- " ſième periode, les malades traités par ces medecins ſi actifs, & " aſſiſtés de tous les ſecours; ne laiſſoient pas de mourir comme " auparavant:——que leur pratique n'étoit ni plus ſure ni leur " prognoſtic plus fidele que ceux des autres—qu'ils ne propoſoient

[34] Traité de la Peſte, p. 231.
[35] Journal, p. 56.
[36] Relat. Hiſtor. p. 378, 381.

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" d'autre remede, que ceux dont on avoit déjà reconnu la foibleſſe " & preſque l'inutilité : que bien loin de corriger le préjugé d'in- " curabilité du mal, ils n'avoient fait que le fortifier d'avantage " par le petit nombre de malades, qu'ils avoient gueris."[37]

The compliment paid by thoſe gentlemen to M. de Langeron and the ſheriffs, is very juſt. By a firm conduct and well concerted regulations, order had by them been reſtored to the city; but when they repreſent the decreaſe of the diſtemper, merely as a conſequence of the exertions of police, and add their own ſucceſs in curing the infected; it would have been better to have ſacrificed to medical truth, the tacit compliment paid to themſelves, and ſhown with more preciſion the cauſe of that decreaſe, as well as of their own better ſucceſs in practice.

The calm, at Marſeilles, towards the cloſe of October, was of ſhort duration; the diſeaſe again germinating in different quarters, particularly in that of St. Ferriol; but with abated force, both in reſpect to the violence of the diſeaſe, and the numbers infected. In the laſt fortnight of November, the newly infected, excluſive of thoſe carried to the hoſpital, did not exceed eight or ten in a week.[38]

In this ſtate, however, the diſtemper occaſioned freſh alarm, and its increaſe was aſcribed to the following cauſes. To people flying for refuge into the town, from the adjacent territory where the diſtemper then raged;[39] to the imprudent handling of goods in infected houſes, by perſons impatient to know the value of poſſeſſions to which they had unexpectedly ſucceeded;[40] and laſtly, to a rage for marriage, which ſpread epidemically, and often proved fatal to the new couple.[41] Theſe and other enormities excited

[37] Relat. Hiſtor. p. 382, 383. [38] P. 334. [39] P. 337. [40] P. 338.
[41] P. 340 and 343. See Lazaretti di Genoa, p. 123.

cited the attention of government, which at length interpoſed, but could not ſtop them entirely. CHAP. IV.

The cauſes now enumerated might, no doubt, have ſome effect, and the exertion of the magiſtrates might, in ſome meaſure, check theſe diſorders; but a more general and powerful cauſe had begun long before to reſtrain the havock of the peſtilence, which had declined viſibly in September, and, in the courſe of the three ſubſequent months, decreaſed with a rapidity not aſcribable to

In tanti terrori, e ſpaventi, tra tanti fetidi, e putrefatti carnami, fra tante ſtrida, ſoſpiri, e gemiti de' patienti, che avreſte creduto? che le perſone ſpaventate, & inhorridite ſteſſero ſempre melanconiche, modeſte, & pacate? Voi ſiete in errore. Si canta, ſi ſuona, ſi ſalta, ſi fanno gl'amori, ne mai ſi vidde Genoua tanto sfacciata, diſſoluta, e licencioſa——e gia ch'altrove diſſi che in queſta peſte Dio vendemmiava per il cielo, pareva ancora il tempo delle vendemmie per li sfrenati della terra. Che ſe ciò non è, d'onde avvienne che ſi fecero in *Conſolatione* tanti matrimonii, & chè molte donne ſenza ſparger una lagrima per la morte de loro conſorti, ſubito s'appigliorno a nuovi partiti? Un giorno particolarmente, che ſe ne celibrono cinque, e quattro de' ſpoſi erano beccamorti, che con le ſpoglie de' cadaveri adornorno ſe ſteſſi, e le ſpoſe.

Amidſt ſo many dreadful fears and terrors, amid ſo many fetid and putrifying dead bodies, amid the ſhrieks, the ſighs, and groans of the ſick, what would you have expected? that the people ſtruck with dread and horror remained ſad, modeſt, and quiet. You are miſtaken—They ſung, played on inſtruments, danced, intrigued, and Genoa never was ſeen ſo ſhameleſs, debauched, and diſorderly—I have ſaid before that God in this plague gathered in a harveſt for heaven, but it ſeemed alſo to be a vintage for the laſcivious of the earth. If not ſo, how came ſo many marriages to be celebrated in the Lazaretto of the Conſolation, and that ſo many women, without ſhedding a tear for the death of their huſbands, immediately entered into new engagements? One day in particular, five marriages were performed, four of the bridegrooms being buriers of the dead, and dreſſing themſelves, and their brides, in clothes ſtripped off from the bodies of the deceaſed.

The following is an Extract from a Letter written by a Gentleman who reſided at Meſſina during the plague in 1743. "It has always been obſerved that after every "plague, thoſe who recover are addicted, in an extraordinary degree, to lewdneſs "and incontinence, which was ſurpriſingly viſible at Meſſina, and carried to ſuch a "degree of frenzy and beſtiality, that many were known to violate the bodies of "dead virgins: ſo great was the incitation to acts of venery." See Jordani Peſtis Phænom. tract. i. cap. 18. p. 217. Diemerbroeck de Peſte. lib. 2. cap. iii. p. 98.

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the exertions of the moſt vigorous police. This cauſe is generally ſuppoſed to be ſome change in the conſtitution of the air; but which has hitherto been defined with no better ſucceſs, than that peculiar ſtate of the atmoſphere which, in conjunction with contagion, is indiſpenſibly requiſite to render the plague epidemical.

Doctor Arbuthnot, admitting the air may be endued with occult or extraordinary qualities, beſides its common properties hot, cold, moiſt, &c. as ſaline, or oily, which it ſometimes ſeems to be, by its effects; and "that from the action of heteroge-"neous bodies contained in it, ſome new ſubſtances may be pro-"duced of a nature different from the ingredients."—Yet thinks there is no neceſſity always to have recourſe to ſuch occult qualities; "there being no change in human bodies known, but is "producible by the contents, properties and qualities, which we "are ſure the air is endued with, and eſpecially by their great "enormities and ſudden ſucceſſions and alterations." In reſpect to the plague, he thinks no one can deny that the air is the chief inſtrument both of propagating and extinguiſhing it. "And this "muſt be true from what cauſe ſoever you deduce the plague; "if from an animate cauſe, as from inviſible inſects, the favour-"able conſtitution of the air to their propagation muſt be ſup-"poſed; if from infection of any kind, the air is the medium "through which it is propagated, and muſt favour it, more or "leſs, in different ſeaſons, becauſe by the change of the qualities "of the air, it is quite extinguiſhed, and generally ſpeaking by "cold; after the peſtilential ſeaſon is over, people return to their "houſes with ſafety."[42]

Doctor Mead had before obſerved, "that a *corrupted ſtate* of air "is, without doubt, neceſſary to give theſe contagious atoms their "full force; for otherwiſe it were not eaſy to conceive how the "plague, when once it had ſeized any place, ſhould ever ceaſe but "with the deſtruction of all its inhabitants: which is readily ac-

[42] Arbuthnot on Air, p. 174, 187.

"counted

" counted for by ſuppoſing an emendation of the qualities of the " air, and the reſtoring of it to a healthful ſtate capable of diſſi- " pating and ſuppreſſing the malignity .... When the conſtitu- " tion of the air happens to favour infection, it rages with great " violence; that at that time more eſpecially, perſons give it to " one another, and contagious matter is lodged in goods of a " looſe and ſoft texture, which being packed up, and carried " into other countries, let out when opened, the impriſoned " ſeeds of contagion, and produce the diſeaſe whenever the air " is diſpoſed to give them force; otherwiſe they may be diſſipated " without any conſiderable effects."[43]

In what this particular conſtitution of the air conſiſts, which in one caſe favours the ſpreading of the diſtemper, and in the other checks or extinguiſhes it; whether it operates by heightening the powers of the infectious effluvia, or by inducing an epidemical change on the human body, whereby it is rendered more or leſs ſuſceptible of, or enabled to reſiſt their influence, the effluvia remaining the ſame; are points involved in much obſcurity. It ſeems in the mean while inconteſtible that without a concurrent ſtate of the air, the plague will not become epidemical; and without a certain diſpoſition of body, the infection will not take effect. " Although the air be in a right ſtate (ſays Mead) yet a ſick per- " ſon may infect thoſe that are very near him,"[44] which is true, ſuppoſing them prediſpoſed to receive the infection: but on the other hand, even in a corrupted ſtate of the air, or rather that ſtate, whatever it be, which favours the propagation of contagion, ſome perſons, from a peculiar unſuſceptibility, are often known to approach the ſick without being injured. Were I to adopt one of ſeveral in this region of conjectures, I ſhould be inclined, for the following reaſons, to that which ſuppoſes the conſtitution of the air acting on human bodies, by heightening or leſſening their ſuſceptibility of contagion, rather than by heightening or abating

[43] Mead on the Plague, p. 57, 69.

[44] Ibid. p. 52.

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the malignity of the peſtilential effluvia.[45] Firſt, in the beginning of a peſtilence, the diſeaſe, though leſs contagious, appears in its moſt fatal form. Secondly, in its increaſe and height, though manifeſtly more infectious, the malignity of the effluvia does not ſeem to be exacerbated, becauſe milder forms of the diſeaſe are then more common. Thirdly, ſeveral perſons infected from the ſame ſubject, are variouſly afflicted, ſome in a greater, ſome in a leſſer degree; the diſeaſe being modified by difference in conſtitution. And laſtly, perſons in conſtant communication with the ſick, who have reſiſted infection in the moſt contagious ſtages of a peſtilence, are ſometimes attacked in its declining ſtate; which ſeems to indicate ſome change in the habit of the individual, not the increaſed activity of the contagious effluvia.

[45] Ovverro potrebbe immaginarſi, che tali venti & vapori, ſenza cangiar punto la qualità di queſto veleno, cangiaſſero la coſtituzion dell'aria, e de' corpi humani di quella città, onde eglino da li innanzi non ſentiſſero ſi preſto, nè provaſſero coſi fiero queſto crudeliſſimo morbo, rendendoſi diſpoſti a maggiormente reſiſtergli. Muratori, lib. 2. c. iv. p. 161.

Or one may imagine that ſuch winds and vapours, (impregnated with certain properties) without, in the leaſt, changing the quality of the peſtilential poiſon, may produce ſuch an alteration in the conſtitution of the air, and in that of the human bodies, inhabiting the infected city, as renders them leſs ſuſceptible of its impreſſion; and, by enabling the conſtitution to reſiſt more powerfully, mitigates the ſeverity of that moſt cruel malady.

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The Plague, declining in the City of Marſeilles, ſpread in the adjacent Territory—Expurgation of the City.—Decline of the Plague in Egypt and Syria.—The Plague leſs Contagious in its Decline.—Decline of the Plague at London, Anno 1665—Peſtilential Conſtitution of the Air varies in its Degree and Duration—It does not conſiſt in Enormities of the known properties of the Air.—Commerce with Places infected may ſubſiſt without ill Conſequence in the Abſence of the Peſtilential Conſtitution.

THE fourth period of the plague at Marſeilles, comprehends the months of December and January, through which the diſtemper continued decreaſing ſenſibly in the city, whilſt it increaſed in the territory adjacent:[1] as will appear in one view from the ſubjoined ſtate of the hoſpitals.[2]

[1] Relat. Hiſtor. p. 358, 363.

[2] The principal hoſpitals were two, de la Charité, and du Mail. The patients in the firſt were all of the city; the ſecond received both thoſe of the city, and from the territory: both were opened the 3d of October 1720. In March 1721 the Charité was ſhut up, and about one hundred of the remaining ſick were removed to the hoſpital du Mail. The ſick of the city in both are given together; thoſe of the territory are given ſeparately.

Both Hoſpitals, ſick from the City.			Hoſpital of the Mail, ſick from the Territory.	
	Months.	Received.	Died.	Received.	Died.
1720.	October	862	458	7	7
	November	406	258	49	29
	December	193	143	63	37
1721.	January	154	70	165	73
	February	87	52	91	53
	March	127	8	67	57
	April	19	13	65	57

General State.

	Received	Died	Diſchaged
L'hopital de la Charité from the 3d of October to the end of February.	1013	585	353
L'hopital du Jeu de Mail from Oct. the 3d to July.	1512	820	692

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In January and February a general expurgation of the city was attempted with infinite pains and labour;[3] and it may be conſidered as a proof of the air having become unfavourable to contagion, that the diſeaſe was not more ſenſibly renewed in the rummage, removal, and purifying infected goods; for in the former month 154 patients only were received into the hoſpital, and in the latter 87: yet the danger of infection ought to have been greater than in the preceding months, when depopulated houſes were kept ſhut up, and nothing within permitted to be touched.

This circumſtance is the more remarkable, ſeeing the diſtemper was ſpreading in the adjacent territory, in the very months when it was rapidly declining in the town, without any manifeſt difference in the common qualities of the air; not to mention its breaking out in the winter ſeaſon in ſeveral towns of Provence, as Toulon, Arles and Auriol, where it appears in the ſequel to have made no leſs havock than at Marſeilles.

There could be no compariſon between the quantity of contagious miaſmata preſerved in ſtuff of all kinds, and diſperſed in Marſeilles, in the months of January and February, and that which kindled the peſtilence in the towns above-mentioned, to which it was ſuppoſed to be conveyed by imported contagion. Why therefore was not the diſtemper revived in Marſeilles? or what other cauſe than ſome change in the air can be ſuppoſed to have reſtrained the operation of the peſtiferous effluvia? It is true thoſe choſen in preference for cleanſing the houſes, and for other dangerous offices, were perſons recovered from the plague, and conſequently leſs liable to contract it again; it is likewiſe true, for a ſimilar reaſon, that in all quarters, the number of ſurviving ſubjects liable to infection was greatly reduced; but ſtill many remained in the city who hitherto had not been infected.

[3] Relat. Hiſtor. p. 432.

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The number of inhabitants of Marſeilles, at the commencement of the peſtilence, was reckoned to be ninety thouſand, of which forty thouſand are ſuppoſed to have periſhed:[4] but ſeeing a conſiderable proportion of the ſick in the 4th and 5th claſſes recovered, it may be preſumed that twenty, or at leaſt ten thouſand perſons remained untouched. This was a conſiderable number without any other privilege of exemption than want of predispoſition requiſite to infection; for an infinitely ſmaller quantity of contagious effluvia, raiſed and ſpread the peſtilence in other places in the ſame ſeaſon of the year.

Notwithſtanding the general expurgation of the houſes and furniture, and the vigilance of the magiſtrates in removing perſons immediately, when taken ſick, to the hoſpital, and putting the reſt of the family in quarantine, the diſtemper lingered in the town till the month of July.[5] In March there was an obſervable increaſe of patients in the hoſpital, chiefly conſiſting of what were termed relapſes;[6] but in April the number fell to 19 from 127; and after that, till June, the diſtemper was merely ſporadic. It had declined rapidly, but its diſappearance was ſlow and gradual, not ſudden; in which circumſtance its termination agreed with that of the plague at Aleppo, and I believe with that of all plagues in the Levant; in which country, as obſerved before in the Journal, the peſtilence is commonly ſaid to be over, and the communication, even with the Europeans, begins ſeveral weeks before the diſtemper abſolutely ceaſes.

[4] In the eſtimate of the number of inhabitants of Marſeilles, and the number deſtroyed by the plague, I follow the Traité de la Peſte, p. 464. The Relation Hiſtorique, p. 476, reckons one-half of the inhabitants were deſtroyed, that is 40,000 in the town and 10,000 in the territory; but obſerves, at the ſame time, that it was impoſſible to know the number exactly.

[5] Relat. Hiſtor. p. 451.

[6] See on this Subject, Book ii. Chap. 6th.

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This has been juſtly remarked in the Relation Hiſtorique, when it places the termination of the fourth period of the plague in March 1721. " En mettant ici la fin de la peſte, nous ſuivons " l'uſage du Levant, où elle eſt familiere, & où on la regarde " comme finie, quand on voit ceſſer la mortalité, & qu'il ne pa- " rôit plus que quelque malade en des tems fort éloignez l'un " de l'autre, comme il eſt arrivé ici dans tous les autres mois qui " nous reſtent à décrire."[7]

Proſper Alpinus, in his account of the termination of the plague at Grand Cairo, repreſents it as ceaſing in a manner at once in the month of June, " Junio vero menſe, qualiſcumque et quantacum- " que ſit ibi peſtilentia, ſole primam cancri partem ingrediente, " omnino tollitur, quod multis plane divinum eſſe non immerito " videtur. Sed quod etiam valde mirabile creditur, omnia " ſupellectilia peſtifero contagio infecta, tunc nullum contagii " effectum in eam gentem edunt, ita ut tunc ea urbs in tutiſſimum " ac tranquilliſſimum ſtatum reducatur, ex ſumme morboſo; atque " morbi particulares ſporadici tunc apparere incipiunt, qui nuſ- " quam gentium tempore peſtis apparebant."[8]

But, in this matter, I was inclined to ſuſpect Alpinus had truſted too implicitly to the traditions of the natives, who ſpoke in the ſtyle of the Levant; and upon making ſtrict enquiry, my conjecture was confirmed by ſeveral accounts received from perſons long reſident at Cairo, Europeans as well as Natives, all which concurred in the plague's declining rapidly in June, but not ceaſing entirely.[9]

In

[7] Relat. Hiſtor. p. 451.

[8] Proſper Alpinus, de Medicina Ægypt. lib. i. cap. 17.

[9] The account given by Proſper Alpinus is, in ſome meaſure, confirmed by my friend Mr. Bruce, in his celebrated Travels lately publiſhed. (Vol. 3. p. 716.) After ſome curious remarks on the dew or *nukta*, which in Egypt falls preciſely on St.

In moſt places of the Levant, a popular tradition is to be found of the extinction of the plague at a certain fixed period, which varies, CHAP. V.

St. John's day,* he ſays, "The firſt and moſt remarkable ſign of the change brought "about in the air is, the ſudden ſtopping of the plague at St. John's day; every "perſon though ſhut up from ſociety for months before, buys, ſells, and communi- "cates with his neighbour without any ſort of apprehenſion; and it was never known, "as far as I could learn upon fair enquiry, that one fell ſick of the plague after this "anniverſary; it will be obſerved I don't ſay *died*; there are I believe examples of "that, though I believe but few; .... what I ſay and mean is, that no perſon is "taken ill of the plague ſo as to die after the dew has fallen in June; and no ſymp- "toms of the plague are ever commonly ſeen in Egypt, but in thoſe ſpring months "already mentioned, the greater part of which are totally deſtitute of moiſture.

"The Turks and Moors are known to be predeſtinarians ..... ſecure in this prin- "ciple, they expoſe in the market place, immediately after St. John's day, the "clothes of the many thouſands that have died during the late continuance of the "plague, all of which imbibe the moiſt air of the evening and morning, are handled, "bought, put on, and worn without any apprehenſion of danger: and though theſe "conſiſt of furs, cotton, ſilk and woollen cloths, which are ſtuffs the moſt retentive "of the infection, no accident happens to thoſe who wear them from their happy "confidence."

Had all the facts now ſtated been of a nature to fall under Mr. Bruce's immediate obſervation, I ſhould have been induced, from my knowledge of his accuracy, to have changed an opinion formed on the ſubject many years ago, in conſequence of information obtained, at that time, from an eminent Venetian merchant, whoſe houſe has been long eſtabliſhed at Cairo, and who, at my requeſt, was ſo good to examine the houſe's copy book of letters, and other records, regarding the periods of the plague's de- cline and termination. The anſwer received was to the following purpoſe, "That the "plague in general, begins to decline faſt in June, after the firſt week of which "month the Europeans ſometimes venture to viſit one another in the night, when "there is little hazard of meeting with perſons in the ſtreet.—That in the day time "they continue ſtrictly ſhut up till the 24th, and then if they do open or come abroad, "it is not altogether without certain precautions; for though accidents may have be- "come very rare, they certainly do happen after that period. In 1759 the Euro- "peans remained ſhut up till the middle of July; which was conſidered as very extra- "ordinary."

Some natives of Cairo, with whom I had occaſion to converſe on the ſame ſubject, agreed in the above circumſtances, upon being queſtioned particularly; but

* See Niebuhr Voyage en Arabie, V. 1. p. 104.

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varies, however, at different places. At Aleppo it is fixed nearly a month later than at Cairo.

A chaplain of Aleppo, in the year 1600 obſerves, "that the "plague broke out in March, by reaſon of which all traffick was "hindered, and thoſe merchants whom they call Franks or "Freemen, either removed to other places, or ſuch as ſtaid in "the city cauſed their gates to be ſhut up, and came not abroad "till Sol entered into Leo, which is uſually the 12th or 13th "of July, at which time the plague ſtill ceaſeth in this place, "though it be never ſo great, and all that are then ſick amend, "and ſuch of them as come abroad need not fear any danger."[10] This gentleman, Mr. Biddulph, with a party of gentlemen of the factory, ſet out that year for Jeruſalem, in March; but it does not appear at what time they returned.

Mr. Biddulph had been only a ſhort while in the country, and truſted to the report of the natives, among many of whom a ſimilar notion of the extinction of the plague at Aleppo ſtill maintains credit, though in expreſs contradiction to every plague which has ſince viſited that city.

The decline and extinction of the plague in the Levant, purſue therefore nearly the ſame courſe as deſcribed in the plague of

in general the Natives, the Chriſtians eſpecially, talk of the extinction of the plague at Cairo on St. John's day.

On comparing this account with thoſe given by Proſper Alpinus, and my friend Mr. Bruce, it appears more conſiſtent with what I had occaſion myſelf to obſerve in Syria; for in every place the plague is repreſented by the natives, as ceaſing at a certain period, ſometime before it is actually extinct. At Aleppo, ſoon after St. John's day, I have ſeen a funeral proceſſion made by the lower rank of Chriſtians, who carrying an empty bier through the ſtreets, call it the burial of the plague. In the mean while it is agreed on by all, that about the 24th of June, at Cairo, there is a remarkable ſudden alteration in the contagious property of the plague, as well as in the malignity of the diſeaſe itſelf, to whatever cauſe it is to be aſcribed.

[10] Purchas's Pilgrim. p. 1345.

Marſeilles;

Marſeilles; allowance being made for difference of ſituation and climate. But in the Levant, it may ſometimes appear to ſtop more ſuddenly than it does in reality, on account of the pains taken by the natives to conceal accidents when they become rare, or happen in places remote from the European houſes, a circumſtance repeatedly marked in the Journal of the plague of Aleppo[11]. CHAP. V.

The ſecond part of Alpinus's remark, that at the ſame time the peſtilence ceaſes, the furniture in infected houſes ſuddenly loſes all power of communicating the diſeaſe to the inhabitants, ſo that health and tranquillity are at once reſtored to the city, agrees in ſome meaſure with the general experience of other places in Turkey, where it is well known houſes or goods undergo little or no purification: but this is to be underſtood with ſome reſtriction.

We have ſeen at Marſeilles, that thoſe taken ill in November and January, were moſtly perſons of the lower claſs, who had raſhly expoſed themſelves in handling infected goods, or in communication with the ſick[12]. I met with inſtances of the like kind at Aleppo, after the ſuppoſed extinction of the plague; and have been credibly informed ſuch alſo happened at Cairo. I have no doubt Alpinus was miſtaken in aſſerting the plague ceaſes at once; and it is not improbable the lingering accidents obſerved there, as well as in other parts of Turkey, may be produced by the like cauſes that produced them at Marſeilles. At the ſame time it muſt be allowed, as before remarked, that inſtances of freſh infection, in the latter ſtage of a peſtilence, bear no proportion to the quantity of polluted goods ſcattered in the place; and it may be conſidered as another argument in favour of the power of the peſtiferous miaſmata not being impaired, that the ſame goods handled ſafely in one place, convey and ſpread con-

[11] See before, book i. chap. 4, 5, 6.

[12] Relat. Hiſtor. p. 338, 367.

tagion

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tagion in another, where the ſtate of the air happens to concur to its propagation. This fact, of material conſequence to quarantine, will be conſidered more particularly in the next chapter.

The termination of the laſt plague of London, in 1665, will be found to agree, in many circumſtances, with the foregoing narrative of the decline and termination of the plague of Marſeilles. Its decline was rapid, but it continued lingering great part of the ſucceeding year.

The Explainer of Mead's Diſcourſe, cites the following paſſage from Hodges, "The houſes which before were full of the dead, "were now again inhabited by the living; and the ſhops which "had been moſt part of the year ſhut up, were again opened, "and the people again chearfully went about their wonted affairs "of trade and employ, and even, what is almoſt beyond belief, "thoſe citizens who were before afraid even of their friends and "relations, would, without fear, venture into the houſes and "rooms where infected perſons had a little before breathed their "laſt: nay, ſuch comforts did inſpire the languiſhing people, "and ſuch confidence, that many went into the beds where "perſons had died, even before they were cold or cleanſed from "the ſtench of the diſeaſe[13]." In this account, (adds the ex-"plainer) "there is no want of a neſt or fomes, for here is "wool, linen, ſilk, and perhaps even treacherous cotton itſelf— "*yet no farther contagion appeared*, but men eagerly purſued their "buſineſs, and thought how to repair the paſt mortality, and "that with more than ordinary ſucceſs[14]."

Doctor Pye, upon the ſame paſſage of Hodges, makes the following comment, "here it is expreſsly affirmed, that thoſe who "went near the ſick, and even into their beds, *did not catch this*

[13] Mead's Diſcourſe explained, p. 36.

[14] It may be remarked, that the words printed in Italics, are not found in Hodges. Loimolog. p. 27.

"*ſickneſs*,

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" *ſickneſs*, and yet the peſtilence was very far from being ceaſed " at that time - - - Wherefore ſince thoſe who acted in this " manner received no injury, even though the peſtilence ſtill " raged exceedingly; we muſt conclude, that the peſtilence de- " pended entirely on the conſtitution of the air, and was not at " all communicated from ſick perſons[15]."

But in the paſſage from Hodges produced by theſe writers, it is neither expreſsly affirmed, nor indeed hinted, " that thoſe who " went near the ſick, and even into their beds, did not catch " the ſickneſs." Such raſh proceedings are placed early in November, in the firſt week of which month 1414 died, and in the ſecond 1050, which ſhows the diſtemper ſtill ſubſiſted in a conſiderable degree; but Hodges no where ſays, that among the perſons then infected none of thoſe were included who had expoſed themſelves in ſuch an imprudent manner, as he thinks will ſeem incredible, conſidering the terror and apprehenſion univerſally prevalent juſt before.

The impatient eagerneſs of the citizens, in entering houſes that had been infected, in taking poſſeſſion of goods and furniture, and even the intemperate rage for marriage, are circumſtances mentioned alſo in the plague of Marſeilles; but it ſtands there recorded, that many ſuffered for their temerity. I think it can hardly be doubted, that the like conſequences ſometimes happened at London; at leaſt nothing expreſsly to the contrary appears in the paſſage cited from Hodges, and the continuance of the diſeaſe in ſo high a degree in the ſubſequent months, may

[15] Remarks on Three Treatiſes, with additional Notes, p. 13. It is worth obſerving, that the Explainer and Doctor Pye, though they differ in the mode, agree in miſrepreſenting the paſſage from Hodges. The one affirms no farther contagion appeared, the other that the peſtilence ſtill ſubſiſted in a conſiderable degree.

perhaps

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perhaps be partly imputed to the neglect of the meaſures purſued at Marſeilles[16].

From the manner in which Hodges expreſſes himſelf, the diſtemper would ſeem to have ceaſed entirely in the winter. "The "next year indeed appeared ſome remains of the contagion "which was eaſily conquered by the phyſicians, and like the "termination of a common intermittent fever, ended in a health-"ful recovery; whereupon the whole malignity ceaſing, the city "returned to a perfect health[17]." Sydenham in like manner repreſents it as appearing only here and there in the winter, and the beginning of the ſpring, "Urgente brumali frigore tantum non evanuit, niſi quod ſparſim unum atque alterum hinc inde feriret per omnem hyemem, & inſequentis veris exordium, quo appetente et ipſa omnino deleta eſt; manſit tamen febris, quamvis non ita epidemica, excurrente integro anno ſequente, imo ad verusque ortum anni 1667[18]."

[16] A paſſage from a book, publiſhed in 1665, relative to the plague in 1625, would have been more directly to the purpoſe of Mead's opponents, than that from Hodges. "But leaſt any one with over much care ſhould prejudice their own "private affairs, or the trade of this royal city of London, - - - he may be in-"formed, that in the ending of the laſt great ſickneſs, (1625) the people went pro-"miſcuouſly one among another, and the houſes were quickly filled with inhabi-"tants, and freſh comers out of the country, and yet no infection followed. And "I remember, that in the loyal city of Briſtol (the place where I was born) about "twenty years ago, many houſes were ſhut up, and hundreds died every week of "the plague, both before and during the ſiege, whilſt it was kept for the King's "moſt excellent Majeſty, by that moſt renowned and valiant commander his High-"neſs Prince Rupert; but as ſoon as ever the enemies entered in, as if the leſſer "plague vaniſhed and departed at the approach of a greater, the ſoldiers made no "great difference of quartering in any houſes, or coming into any company, and "the inhabitants returned to their forſaken dwellings at one gate, whilſt the peſ-"tilence went out at the other, and hath not hitherto returned again."

Kemp on the Peſtilence, p. 39, Lond. 1665.

[17] Hodges Loimolog. p. 28.

[18] Sydenham Oper. Lugd. Bat. 1726. ſect. 2. cap. 1. p. 106.

Neither

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Neither of theſe accounts correſpond with the bills of mortality, which make the number of perſons who died of the plague, in 1666, amount to two thouſand. This would ſeem to be a mortality too conſiderable to be ſpoken of ſo ſlightly, had it been known to thoſe gentlemen. We muſt therefore ſuppoſe the plague prevailed in quarters diſtant from where they practiſed, or that the fever termed by Sydenham peſtilential, often paſſed in the bills for the true plague. I ſhould be more inclined to the latter ſuppoſition, but for a remark of Graunt's, which ſeems to be well founded, that the number of thoſe who die of the plague is generally extenuated in the bills, not exaggerated[19].

It is however ſufficiently clear, that the diſtemper lingered, as it had done at Marſeilles, for ſeveral months after its rapid decline in the winter; and if we conſider that the expurgation of houſes, and the ſeparation of the ſound from the ſick, was not much more attended to at London in the decline of the plague, than in the Levant, it muſt be allowed that the quantity of peſtiferous miaſmata remaining in the city, might have renewed the diſtemper, had not the conſtitution of the air been unfavourable to contagion.

The ſtate of the air inſtrumental in propagating the plague varies in its degree of power, as alſo in its duration. At Aleppo, in 1742, the peſtilential conſtitution continued three years, of which the middle year, 1743, was the moſt, and the laſt, 1744, the leaſt ſevere[20]. In 1760 it continued alſo three years, but the laſt of the three was the moſt, and the firſt the leaſt ſevere.

The variation of peſtilential conſtitutions at London is ſtill more conſiderable. The plague of 1603 laſted eight years; in

[19] Natural and Political Obſervations, &c. J. Graunt, 2d edit. Lond. 1662, and Collection of ſcarce Pieces relating to the Plague in 1665, p. 53.

[20] Nat. Hiſtory of Aleppo.

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ſome whereof there died four thouſand, in others above two thouſand, and in but one leſs than ſix hundred. The plague of 1636 laſted twelve years; in eight whereof there died two thouſand and odd a year, one with another, and never under three hundred and fourteen, as appears from the following table[21].

In London.		In London.	
Years.	Died of the Plague.	Years.	Died of the Plague.
1603	30561	1636	10400
1604	896	1637	3082
1605	444	1638	363
1606	2124	1639	3 4
1607	2352	1640	1450
1608	2262	1641	1375
1609	4204	1642	1274
1610	1083	1643	996
1611	627	1644	1492
		1645	1871
		1646	2365
		1647	3597
		1648	611

The ſudden ſubſultory increaſe and decreaſe of the weekly funerals, from one hundred and eighteen in one week, to nine hundred and twenty-ſeven in the next; from nine hundred and ninety-three, to two hundred and fifty-eight, and from thence again, the very next week, to eight hundred and fifty-two; is alſo remarkable.

[21] Graunt's Natural and Political Obſervations, &c. p. 33. Lond. 2d. edit. 1662. Collection of very valuable and ſcarce Pieces relating to the Plague 1665, p. 81. Lond. 1721.

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I do not find a general weekly table in my edition of Graunt, and I ſhall therefore ſubjoin two tables[22], one of the weekly funerals in the laſt five great plagues at London, and in two years of the laſt plague at Aleppo. Another, ſhowing the monthly increaſe and abatement of the plague at London, Dantzick, and Aleppo. From the former it will appear, that this fluctuation in the mortality is common to different years, and to different countries; while the ſecond table exhibits at one view, the comparative courſe of the diſeaſe in the cold, and in the more temperate climates.

It ſhould be remarked here, that the mortality at Aleppo, in the months of October, November and December, 1761, was not produced ſolely by the plague, but principally by other mortal diſtempers, then prevalent. The ſame remark being applicable to the months of January, February, and March, 1762, the weekly bills for theſe months are omitted in Tab. I; and, though inſerted in Tab. II, for March, it is to be underſtood that a great part of the mortality was owing to diſeaſes diſtinct from the plague. The difficulty, in the winter months, of diſcriminating peſtilential funerals exactly, was the reaſon for omitting them in Tab. II.

[22] Taken partly from London's Deliverance predicted, by John Gadbury, Lond. 1665. See Short's Comparative Hiſtory, p. 5. Lond. 1767.

TABLE I.

Showing the Increaſe and Abatement of the Plague at London - - - - - and at Aleppo.

Months	Weeks	1593	1603	1625	1636	1665	1761	1762
January	3							
	10							
	17							
	24							
	31							
February	7							
	14							
	21							
	28							
March	17	3	3	4				
	24	31	2	8				
	31	29	6	11				
April	7	27	4	10	2		58	165
	14	33	4	24	4	2	88	240
	21	37	8	25	14		125	205
	28	41	10	26	17		113	257
May	5	29	11	30	10	9	171	303
	12	38	18	45	55	3	139	254
	19	42	22	71	35	14	177	296
	26	58	32	78	62	17	290	579
June	2	62	30	69	67	43	670	710
	9	81	43	91	87	112	543	874
	16	99	59	105	103	168	505	1208
	23	108	72	239	79	267	612	1273
	30	118	158	390	104	470		1472
July	7	927	262	593	81	725	708	998
	14	893	424	1004	104	1089	483	506
	21	258	917	1819	120	1843	296	379
	28	852	1396	2471	151	2010	239	232
Auguſt	4	983	1922	3659	206	3817	102	136
	11	797	1745	4115	283	3880	110	112
	18	651	2713	4463	321	4237	90	71
	25	449	2539	4218	429	6102	108	68
							66	
September	1	507	3035	3344	638	6988	76	66
	8	563	2724	2550	650	6544	98	42
	15	451	2818	1072	865	7165	66	48
	22	349	2195	1561	775	5533	78	68
	29	330	1132	852	928	4929		
October	6	327	1641	538	921	4327	85	
	13	323	1149	511	752	2665	106	
	20	308	642	331	555	1421	66	
	27	302	580	134	458	1031	110	
							156	
November	3	301	554	89	838	1414	137	
	10	209	442	92	705	1050	116	
	17	107	251	48	573	652	124	
	24	93	105	27	476	333	167	
Decembe	1	94	102	15	312	210	166	
	8	86	52	15	167	243	156	
	15	71	96	6	85	281	166	
	22	39	74	1	76		105	
							99	

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TABLE II.

Showing the monthly Increaſe and Abatement of the Plague at London, Dantzick and Aleppo.

Months	London.					Dant-zick.	Aleppo.	
	1593	1603	1625	1636	1665	1709	1761	1762
March	63	11	23					398
April	138	26	85	37	2		384	867
May	167	83	224	162	43		777	1432
June	468	362	954	440	1060	319	2330	5537
July	2930	2999	5887	456	5667	1313	1723	2115
Auguſt	2880	8919	16455	1239	17036	6139	476	387
September	2200	12504	9979	3856	31569	8303	318	224
October	1260	4012	1514	2786	9444	4932		
November	710	1352	256	2602	3449	1961		
December	290	324	37	640	734	584		

The courſe of the diſtemper in different years, "ſhows (according to Graunt) "that the contagion of the plague depends "more upon the diſpoſition of the air, than upon the effluvia "from the bodies of men;" and he thinks, "the fluctuation in "the weekly bills ought rather to be attributed to change of the "air, than to change of the conſtitution of men's bodies, otherwiſe than as it depends upon that.[23]

The termination of the plague at London, in 1625, of which above thirty-five thouſand died, was quicker than that of any of

[23] Graunt, p. 33. Collection of ſcarce Pieces, p. 81. Sydenham Opera, de Morb. epidem, cap. ii. p. 47.

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the other years; for in the laſt week of October the burials were reduced to one hundred and thirty-four; in the firſt week of December, to fifteen; and in the year 1626, there died only one hundred and thirty-four: whereas in 1665, there died in the firſt week of November one thouſand four hundred and fourteen; and in the year 1666, two thouſand. At Aleppo in 1762, there died in the firſt week of July, one thouſand two hundred and forty-nine; in the laſt week three hundred; in the firſt week of Auguſt one hundred and eighty-three; in the laſt week fifty-eight: in September the diſtemper vaniſhed.

All theſe circumſtances are in favour of Graunt's concluſion. But I do not find any correſpondent enormity in the ſeaſons, or change in the common qualities of the air, from which the fluctuation and variation of the peſtilence in its courſe, in different years, can be ſatisfactorily accounted for. At leaſt, at Aleppo, though ſtrictly attentive, I was not able to diſcover any irregularity in the ſeaſons to which could be aſcribed the reſtrained progreſs of contagion in 1760, its increaſed vigour in 1761, its raging ſo fatally, and its final extinction in 1762. I have judged it nevertheleſs proper, in the Appendix, to give a meteorological account of the weather for five years, including the year preceding and that following the peſtilential conſtitution; and have annexed to that account ſome comparative remarks on the ſeaſons in the former plague of Aleppo in 1742, 1743 and 1744. A more extenſive ſeries of obſervations may be requiſite for forming concluſions; in the mean while, what I have been able to collect, are ſubmitted as materials to thoſe more converſant in ſpeculations of this kind. I ſhall only add further, that the uſually regular viciſſitude of the ſeaſons in Syria, may probably render it eaſier to detect enormities, when they happen, than in more variable climates, ſubject to unequal weather in all ſeaſons, and often to ſudden changes from one extreme to the other.

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The plague, in common with other epidemic diſtempers, has its ſeveral ſtages. "Porro et ſua habet incrementi, ac declinationis "tempora non ſecus ac cæteræ rerum naturalium ſpecies."[24] Theſe ſtages, however, vary in different climates, and ſometimes in the ſame climate, in different years, as may be collected from the foregoing Table II.

In ſome epidemical diſtempers, the ſudden alternations of the air, have conſtant and manifeſt influence; in others, though the influence of the air muſt be equally admitted, it ſeems not to depend on ſenſible alteration or ſucceſſion in the common properties of the atmoſphere, but on ſome inexplicable combination, ſome occult, new, unknown, quality. Amongſt epidemics of this laſt kind muſt be reckoned the plague. "Variæ ſunt nempe annorum con-"ſtitutiones, (ſays Sydenham, ſpeaking in general of epidemical diſtempers) "quæ neque calori, neque frigori, non ſicco humi-"dove, ortum ſuum debent, ſed ab occulta potius, et inexplicabili "quadam alteratione in ipſis terræ viſceribus pendent, unde aër "ejuſmodi effluviis contaminatur, quæ humana corpora huic "aut illi morbo addicunt, determinantque; ſtante ſcilicet præfatæ "conſtitutionis prædominio, quæ, exacto demum aliquot anno-"rum curriculo, faceſſit, atque alteri locum cedit .... Quamvis "autem diverſas diverſorum annorum habitudines, quoad ma-"nifeſtas aeris qualitates, maxima qua potui diligentia notave-"rum, ut vel exinde cauſſas tantæ epidemicorum viciſſitudinis ex-"piſcarer, me tamen ne hiſum quidem hactenus promoveri ſentio; "quippe qui animadverto annos quoad manifeſtam aeris temperiem,

[24] Sydenham in his uſual accurate manner, deſcribes the ordinary courſe of the plague in England. "Quamquam autem hic morbus, cum dumtaxat ſporadicus exiſtit, nullo "tempeſtatis diſcrimine paucos aliquot, tradito quaſi per manus contagio, affligat, "tamen ubi adeſt etiam epidemica aeris conſtitutio, exoritur circa eam anni partem, "quæ inter ver ac æſtatem ambigit ..... creſcente anno adoleſcit, eadem que "vergente collabaſcit, donec tandem aerem in diatheſin huic morbo adverſantem, "glacialis bruma tranſmutet." Sydenham oper. ſ. 2, cap. ii. p. 108.

ſibi

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Should ever that ſtate of the air, without the concurrence of which the contagion of the peſtilence never ſpreads, or ceaſes to act, be diſcovered and aſcertained by unequivocal marks, the dread of the plague univerſally prevalent, would be greatly diminiſhed; more effectual means of preſervation would be found out, and the application of them might ſafely be limited to certain ſeaſons.

Experience in Turkey, where generally no precautions are taken in the times of peſtilence, clearly evinces, that in a certain ſtate of the air, a communication with infected places may ſubſiſt without any material conſequence. The return of the plague at Aleppo, happens at irregular periods; the intervals are of conſiderable, but unequal length; and in thoſe the commerce with Egypt, Conſtantinople, and Smyrna, remains uninterrupted. In the intervals between 1744 and 1760, and from 1762 to 1780, the plague raged ſeveral times in the places now mentioned, without affecting Aleppo; and even in two or three years ſubſequent to 1762, though it was at Maraſh, as well as other places not far diſtant, with which Aleppo has continual intercourſe, no inſtances were diſcovered of communicated infection[26]: if ſuch happened, they muſt have eſcaped my utmoſt vigilance; and the daily exerciſe of my profeſſion led me to be very much among

[25] Sydenham Oper. de Morb. Epidem. cap. ii. p. 41. Van Swieten was not more fortunate, by his own account, than Sydenham. See Commentary on Boerhaave, ſect. 1408, vol. v. p. 170.

But though the plague cannot be aſcribed to enormities in the ſenſible qualities of the air, theſe may have an effect in rendering the conſtitutions of men more or leſs ſuſceptible of infection. " Fatendum tamen eſt, predictas aëris qualitates corpora " noſtra, ad hujus illiuſve morbi epidemici generationem, magis minuſve diſponere, " quod et de quocumque errore circa ſex res non naturales dictum volo." Sydenham Oper de Morb. Epidem. cap. ii. p. 42.

[26] See Hiſtorical Journal, lib. i. chap. 7.

the natives of all ranks. At the ſame time I have reaſon to ſuſpect that infected families from ſome of theſe places took refuge in Aleppo; and I know with certainty, that not only ſome merchants of that city, who happened to be at Maraſh when the plague broke out there, returned to their families in the ſummer of 1763, but that caravans of various merchandiſe arrived in the courſe of the ſame ſummer. Suſpicious intercourſe of a ſimilar kind, though to all appearance harmleſs at that time, had, in the year 1760, been productive of fatal conſequences, and in ſeveral inſtances, I had an opportunity of tracing the contagion clearly from its ſource.

I conſider it therefore as an eſtabliſhed fact in the Levant, that commerce and intercourſe with infected towns, is ſometimes attended with no bad conſequence. The ſame thing may perhaps be aſſerted, without reſtriction, of all countries; but till the ſigns indicating a peſtilential conſtitution be aſcertained, no particular year can be declared exempt from danger. Predictions founded on planetary conjunctions have been long exploded; and ſigns derived from the known properties and alterations of the air, are almoſt equally fallacious. The ſeaſons concomitant with plagues in England, as well as elſewhere, have been very diſſimilar; and the ſame viſible concurrence, uſually deemed peſtilential, has often in the revolution of years been obſerved to return in various countries, without producing the dreaded conſequences. Upon the whole, from all I have been able to collect, the peſtilential conſtitution ſeems hitherto to be known only from its effects; neither its approach nor its retreat can be predicted; and its nature remains wrapt up in myſterious darkneſs. "At vero "quæ qualiſque ſit illa aeris diſpoſitio, a qua morbificus hic appa- "ratus promanat, nos pariter ac complura alia, circa quæ vecors "ac arrogans philoſophantium turba nugatur, plane igno- "ramus[27]."

[27] Sydenham Oper. ſect. 2. cap. ii. p. 107.

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The plague terminates nearly in the ſame manner in all towns—General expurgation of infected towns expedient, though not always neceſſary—Of ſervice where the peſtilential conſtitution is protracted ſeveral years—Conjectures on the continuance of the plague at London for ſeveral ſucceſſive years, in the laſt century—The opinion of Britain being ſubject to periodical returns of the peſtilential conſtitution examined—Sydenham vindicated.

THE plague, however it may vary in its duration, ceaſes at laſt; and from what has been ſaid of London, Aleppo, and Marſeilles, it would ſeem as if there was little obſervable difference in the mode of its termination, in cities where purification was practiſed, and where it was not.

This leads to the conſideration of ſome points of importance, ſo far as reſpects the adminiſtration of police in the decline of a peſtilence.

1ſt. How far a general quarantine and expurgation, in the manner practiſed at Marſeilles, becomes neceſſary or expedient for haſtening the extinction of the plague, or preventing its reſuſcitation on the return of the ſpring.

We have already ſeen that the plague at Marſeilles began to decline long before it was in the power of the police to attempt the general expurgation of the city, which took place in the ſequel; and that the meaſures taken for that purpoſe, however vigorouſly purſued, did not ſucceed in extinguiſhing the diſtemper entirely, which continued lingering ſeveral months after. Had therefore the peſtilential conſtitution of the air continued, there can be little doubt that the plague would have ſpread at Marſeilles, to a certain degree, in the year 1721, in the ſame ſeaſon which

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which in the year preceding had proved ſo fatal. We have ſeen alſo at Aleppo in 1762, that the plague ceaſed completely without any exertion whatever on the part of the police; and experience in other places of Turkey, as well as at London, Nimuguen and Dantzick, furniſh ſimilar examples.

Hence it may be inferred, that the termination of the plague of Marſeilles was owing principally to a change in the conſtitution of the air; and that a general quarantine and purification are not indiſpenſably neceſſary. At the ſame time it does not follow that they are in no circumſtances expedient or uſeful, on the contrary, the pains taken by the magiſtrates of Marſeilles, though not abſolutely ſucceſsful in extinguiſhing the plague, were certainly a check on its ſpreading.

The cleanſing and expurgation of particular houſes which the diſtemper has deſolated, where it can be done, will hardly be denied to be expedient: but where a city is of large extent, or has been ſo dreadfully viſited as Marſeilles was, a complete univerſal purification would ſeem in the nature of things to be impracticable. The method purſued at Marſeilles appears to have been judiciouſly concerted, and was of ſome ſervice: that it proved not completely ſucceſsful, was owing to the impoſſibility of carrying it into execution in its full extent. This, I think, is evident from the Memoirs referred to below[1].

But that the regulations for expurgation cannot be effectually carried into execution in all ſituations, is no reaſon for rejecting them where obſtacles do not intervene. The propriety of ſeparating the ſound from the infected, has ſeldom been diſputed; repeated experience confirms its utility in the only periods in great plagues when it can effectually take place, that is, in their beginning and their decline; the anarchy prevalent at other

[1] Traité de la Peſte, p. ii. p. 157, 160, 169.

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times, preventing the ſalutary practice from being attempted, or confining it within narrow bounds: but in all inſtances it has been attended with advantage. In like manner, a partial purification may prove the means of protecting not only particular houſes, but ſtreets or pariſhes, where a general one cannot be undertaken with probability of ſucceſs.

The plague, after its ceſſation at Marſeilles in July, 1721, reappeared there about the beginning of May, in the following year; but the vigilance of the police prevented the diſtemper from making any conſiderable progreſs, inſomuch that publick tranquillity appears to have been reſtored before the middle of July [2].

The return of the diſtemper in 1722, was by ſome imputed to the latent remains of contagion which had eluded the general expurgation in the preceding year; but more commonly was aſcribed to infection recently imported from Avignon, in ſmuggled goods [3]. The former opinion was at one time ſo prevalent as to bring it under deliberation, whether a ſecond general expurgation was not requiſite for the ſecurity of the city, and the reſtoration of its commerce. An aſſembly for this purpoſe was held the 9th of July, 1722, the reſult of which was a memorial from the deputies of the Chamber of Commerce, and the principal merchants, ſtating ſo clearly the unneceſſarineſs, the inconveniency, and, in ſeveral reſpects, the impoſſibility of carrying ſuch a meaſure into execution, without extreme prejudice to the commercial world, that it was entirely relinquiſhed [4].

The memorial drawn up on this occaſion enters into a detail of the inevitable difficulties attending a general quarantine and expurgation of the city; and ſhows that before the year 1721, ſuch a practice had never been known at Marſeilles, it being a new cuſtom, unknown to all other towns of Europe. "Il eſt ſans

[2] See Traité de la Peſte, p. ii. p. 210, 235, 236.

[3] Traité de la Peſte, p. ii. p. 235.

[4] Traité de la Peſte, p. 220.

"exemple

" exemple que dans aucun temps, & en aucun pays, l'on ai fait " des déſinfections générales après la ceſſation de la Peſte. Lorſ- " qu'elle s'eſt gliſſée dans les pays policés d'Europe, l'on a fait " comme à Marſeille, des quarantaines & des parfums dans les " Villes & Maiſons qu'elle a attaqueés; les precautions actuelles " de ces parfums, le grand air, le decroiſſement du mal, qui " s'affoiblit de lui même, & le temps enfin, ont rétabli la ſanté " dans ces endroits. La Peſte a été pluſieurs fois en Angleterre, " Eſpagne, Italie, & en France, & elle n'y a ceſſé que comme l'on " vient de dire. L'on ne trouve pas qu'en diverſes occaſions, " ſurtout la derniere fois qu'elle fut a Marſeille, il ait été fait " une deſinfection générale pour la faire ceſſer ..... Aix, Tou- " lon, Arles & pluſieurs autres Villes, & lieux de Provence, qui " ont eu le même malheur dans les anciens temps, & même en " l'annee, 1720, n'ont pas fait autrement que Marſeille, qui leur " a ſervi d'exemple[5]."

2d. Is the ceſſation of the plague at Marſeilles in 1721, to be aſcribed to the means employed by the magiſtrates; to an alteration in the ſtate of the air; or to both jointly?

It has before been repeatedly remarked, that a change in the conſtitution of the air muſt be admitted as the principal cauſe of the ceſſation of the peſtilence. This change is ſometimes ſo ſudden and complete that the diſtemper declines rapidly, and vaniſhes in a ſhort while; at other times it is more gradual, and the diſtemper lingers in a low degree. In the former caſe the exertions of police become leſs neceſſary, or ſuperfluous; in the latter they are of evident utility, and more practicable. In this view they were of ſervice at Marſeilles in 1721 and 1722[6].

3d. Where the peſtilential conſtitution of the air is protracted for a courſe of ſucceſſive years, is it probable a general purification of the city, when the diſtemper ſubſides in the winter, would

[5] Traité ut ſupra, p. ii. p. 225.

[6] Traité ut ſupra, p. i. p. 150, 153. p. ii. p. 236.

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prevent its reviving in the ſubſequent years: as for example, at Aleppo in 1760, might not a general expurgation in the autumn, with proper precautions in the enſuing ſpring, have probably prevented the ſucceeding havock in the two following years?

In reſpect to this query, which is purely hypothetical, I think the probability may be admitted, if effectual purification of infected houſes and ſuſpected goods had been made in the autumn and winter of 1760; if communication with the maritime and other towns had been prevented; and if perſons immediately when taken ill had been ſeparated, with the uſual precautions. I ſay, it is probable that the progreſs of the diſtemper might have been ſtopped, or, at leaſt, the ſubſequent mortality leſſened; eſpecially as the diſpoſition of the air was in a leſs degree peſtilential in 1761, than in the year following. But I doubt whether any human means whatever, in the winter of 1761, would have much availed in averting the misfortunes of 1762; the peſtiferous fomites had in the preceding ſummer been too widely diſperſed, and the conſtitution of the air was more intenſely than ever diſpoſed to propagate the infection.

Notwithſtanding theſe unfavourable circumſtances in 1762, perſons who ſhut up in due time, and with the ordinary precautions, remained unhurt. Even in houſes which had been infected the year before, I have known families ſhut up with the ſame ſucceſs, though the houſes had not been purified by fumigation, but only aired, and the bedding, &c. of the ſick either ſold or deſtroyed: they were conſidered however to be more ſecure where fumigation had been employed. There appears no reaſon why the ſame means that preſerved ten houſes, ſhould not have preſerved ten hundred, and conſequently a whole city, were it poſſible to employ them univerſally.

The numberleſs obſtacles to their application through all quarters of a large commercial town, after the ravage of a ſevere peſtilence, leave little hopes of its extinction by means of the police,

police, without the concurrence of a favourable change in the ſtate of the air; but a due exertion of thoſe precautions will ſerve to reſtrain its progreſs, and their application will be attended with advantages, in proportion as the regulations are extended and exactly obſerved. Several inſtances occurred at Aleppo, of the plague reviving in 1762, in houſes which had ſuffered the year before, attended with circumſtances highly ſuſpicious of the contagion having been preſerved ſeveral months, through neglect in cleanſing; and I met with many inſtances of the diſeaſe being communicated by coverlids, carpets, and apparel, purchaſed from infected houſes. The precaution of European police may ſometimes be unneceſſary or ſuperfluous; the Turkiſh negligence, in that reſpect, is very often productive of viſible ill effects[7]. CHAP. VI.

4th. To what cauſe is the almoſt uninterrupted exiſtence of the plague in London, in the laſt century, to be aſcribed? how far may its long continuance, at one time nine, and at another thirteen years, reaſonably be imputed to the neglect of a proper police? and were the more memorable plague years produced by foreign contagion imported from other countries, or by miaſmata latent in ſubſtances not purified, and brought into action by the return of a peſtilential conſtitution?

In the London bills of mortality from the year 1603 to 1679, four or five years only are found free from the plague. But in the interval between 1611 and the great plague of 1625, of thirteen years, in three only the number of peſtilential burials exceed twenty; in others, are found ſix or nine; and the largeſt number is ſixty-four, that is, in 1612, the year immediately ſucceeding the laſt of the plague of 1603. From 1626 to 1630, in one of the three years no peſtilential burials are found in the bills; in the two others three or four only. In a ſucceeding interval of four years, two appear free from the plague; in the third eight burials are found, and in the fourth, one. From 1648, when

[7] Alpinus de Medicin. Ægypt. lib. 1. cap. 15.

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the great plague of 1636 is ſaid to have terminated, to 1662, an interval of fourteen years, in the firſt the burials amount to ſixty-ſeven, but in two only of the others exceed twenty; and in the remainder, are reduced to ſixteen, fourteen, ſix, or four, annually.

In years wherein three or four burials only are aſcribed to the plague, and even where they amount to thirty or forty, I think it highly probable the ſearchers miſtook the diſeaſe; or that the pariſh clerks put down a number at random in the column. It is much more probable that other eruptions ſhould be miſtaken for peſtilential, than that the true plague, attended with unequivocal ſymptoms, ſhould ſhow itſelf in three or four, or a ſcore of inſtances without further conſequence, in the ſucceſſion of ſeaſons of ſeveral years. When we find ſixty-four perſons died in 1612, two hundred and ſeventy-four in 1631, and ſixty-ſeven in 1649, being the years immediately following great plagues, the mortality may be conceived owing to the lingering remains of contagion; but when the number of burials in the next yearly bill is found reduced to ſixteen, fifteen, or eight[s], I cannot help ſuſpecting a miſtake in naming the diſeaſe; at leaſt, better authority is requiſite for the true plague's exiſtence in ſo reduced a ſtate, for a length of time, than the teſtimony of inaccurate bills of mortality.

Conſiſtently with the above ſuſpicion of miſtake (which is merely conjectural) I think it probable the plagues of London terminated completely in 1612, in 1626, in 1631, and in 1649; and finding in the years immediately preceding the plague years 1603, 1625, 1630, 1636, and 1665, that the bills either mention no peſtilential funerals, or a very inconſiderable number, I think further, it may reaſonably be inferred, that the frequent returns of the plague are rather to be aſcribed to foreign contagion im-

[s] Graunt.

ported,

ported, than to what might be ſuppoſed impriſoned in unventilated fomites remaining in the city. CHAP. VI.

In the long continuance of the plagues of 1603 and 1636, it becomes difficult to determine whether they were kept up by the ſucceſſive propagation of the firſt infection, or recruited by foreign ſupplies. In the third year of that of 1603, and in the third and fourth of that of 1636, the annual burials were reduced to three or four hundred, but increaſed again in the ſubſequent years. Though it cannot be aſſerted, that no freſh infection was then imported, yet, conſidering the few precautions taken in thoſe times to prevent it, there is no neceſſity for ſuppoſing ſuch importation. When once the plague is introduced into a place, it continues as long as the peſtilential conſtitution laſts, raging with more or leſs ſeverity according as the conſtitution happens to favour its propagation; upon a change of that conſtitution the diſtemper ceaſes to be epidemical, and gradually vaniſhes.

The return of the plague at certain intervals, implies the return of the peſtilential conſtitution, which is not however reckoned ſufficient to produce the true plague in Europe, without the concurrence of contagious miaſmata, either recently imported, or exiſting before in the place, and now excited by a certain undefined ſtate of the air[9].

Sydenham after remarking, with gratitude to the Divine Mercy, that the peſtilential conſtitution of the air in Britain returns at long intervals, not above once in thirty or forty years, proceeds in the following manner: "Quæ per annos aliquot peſtem inſig-

[9] "Interea, aeris diſpoſitionem quantumvis λοιμώδη Peſti ſuſcitandæ per ſe impar eſſe vehementer ſuſpicor; quin peſtilentiæ morbum alicubi ſemper ſuperſtitem aut per fomitem, aut per peſtiferi alicujus appulſum, e locis infectis in alios deferri; ibidemque, non niſi accedente ſimul idonea aeris diatheſi, popularem fieri." Syd. Oper. ſect. ii. cap. ii. p. 103.

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" niorem ſubſequentes, ſparſim occurrunt peſtiferorum funera,
" paulatim imminui ac evanceſcere ſolita, peſtilenti aeris diatheſi
" etiamnum ex parte perſeveranti, nec dum in aliam ſalubriorem
" penitus immutatæ attribuenda ſunt, quippe quæ antegreſſæ
" meſſis duntaxat ſpicilegia reputari debeant[10]."

I cannot here avoid taking notice of what Dr. Mead has ſaid on the periodical return of the plague in Britain. In the firſt edition of his book, he ſays, he does not think there is any inſtance of a peſtilential diſeaſe, of great conſequence, in Britain, which was not brought from other infected places; and adds, " this I the rather mention becauſe it is a common opinion, and " propagated by authors of great name, that we are uſually " viſited with the plague once in thirty or forty years; which is " a mere fancy without any foundation either in reaſon or expe- " rience[11]." In the eighth edition he is ſtill more explicit, but in place of uſually viſited, has altered it to " *neceſſarily* viſited." " Since the ill qualities of the air in theſe northern countries " are not alone ſufficient to excite the plague without imported " contagion, this ſhews the error of a common opinion, coun- " tenanced by authors of great name, that we are *neceſſarily* viſited " with the plague once in thirty or forty years[12]."

In the firſt edition no reference is made to particular authors; in the eighth, reference is made to Sydenham's chapter on the plague: but in that I find no aſſertion " that we are neceſſarily " viſited with the plague once in thirty or forty years." Sydenham's own words can ſurely never admit of ſuch conſtruction. He remarks, that the conſtitution of the air neceſſary to render the true plague epidemical, providentially happens ſeldom. " Unde " fit quod hunc orbem noſtrum Britannicum peſtis vix fre- " quentius quam poſt annorum circiter triginta, vel quadraginta,

[10] Sydenham Oper. ſect. ii. cap. ii. p. 107.
[11] Mead, p. 5.
[12] P. 61.

 intervalla,

" intervalla, ſummo ſcilicet perniciei vigore, ac tota furiarum " acie, adoriatur" (p. 107). There is ſurely nothing here of the *neceſſary* return of the plague at certain periods; and were even peſtilential diſpoſitions of the air, (Aeris Conſtitutiones λοιμώδεις) to return periodically, they would not, according to Sydenham, be neceſſarily accompanied with the plague; for he has explicitly given his opinion, that the diſpoſition of the air, however peſtilential, could not of itſelf, without the concurrence of miaſmata, retained in a fomes, or imported from other places, produce the plague [13].

This laſt opinion is exactly what was adopted by Doctor Mead himſelf; it is therefore ſtrange he ſhould impute to Sydenham, who held the ſame opinion of contagion, the giving countenance to a doctrine founded on mere fancy, without foundation either in reaſon or experience, and which betrayed the people into vain fears [14]. He adds, " Since the peſtilence is never originally bred " with us, but always brought accidentally from abroad, its " coming can have no relation to any certain period of time." This is undoubtedly true, if by coming of the peſtilence be meant merely its importation. But if any place, which ſeems particularly to be the caſe with Aleppo, be liable to periodical returns of the peſtilential conſtitution, and have frequent intercourſe with infected places, the plague may there become a periodical diſtemper, though at unequal intervals: if imported contagion happen not to concur with the diſpoſition of the air, the place for that time will eſcape.

Doctor Mead, ſtill in alluſion to Sydenham, obſerves, " Al- " though our three or four laſt plagues have fallen out within " a century, yet that is too ſhort a compaſs of years to be a " foundation for a general rule. Accordingly we ſee the laſt

[13] Sydenham Oper. ſect. 2. cap. ii. p. 109.
[14] Mead, p. 62.

BOOK III. " fifty-ſix years have paſt over without any calamity of this " kind[15]."

I have already ſhown, that the notion of a neceſſary periodical return of the plague, which the Doctor here combats, has been unjuſtly imputed to Sydenham; and it may be remarked, that his laſt obſervation affords a very ſlender argument againſt the periodical diſtant returns of the peſtilential conſtitution. Fifty-ſix years affords time only for the return twice of ſuch a conſtitution, and it is only to ſuppoſe that at ſuch periods, imported infection happened not to concur: a ſuppoſition not unreaſonable, conſidering the ſtricter precautions againſt the plague, employed in latter than in former times.

Doctor Mead allows that the three or four laſt plagues have fallen out within the century; but it may be remarked, that the periods of their return, by no means agree with the periods hinted at by Sydenham. The years 1592, 1593, 1603, 1625, 1636, and 1665 were great plague years, according to the bills of mortality: but excepting the interval between 1636 and 1665, all of them were ſhorter than thirty years. The plagues in England, as collected by Gotwald are the following[16].

The 14th century, 1348, 1361, 1369, 1379, 1391.
The 15th century, 1407, 1478.
The 16th century, 1500, 1513, 1543, 1548, 1563, 1594 (1592)

As Gotwald has not thought fit to add his authorities, I know not how far he is to be depended on.

It was objected by one of Mead's opponents in 1721, that " Experience is of the ſide of the terrible, but common opinion, " that we are viſited by the plague once in thirty or forty years."

[15] Mead, p. 62.
[16] Hiſtorical Account of the Plague, 1743, Lond.

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To which it was replied by a perſon who at the time wrote in defence of Mead, "We have no knowledge of this being ſo, "in the earlieſt times, before we had communication with Africa, "and the Eaſt; either immediately by ourſelves, or by the means "of our neighbours [17]."

But whatever it may have been in the earlieſt times, it would be of ſervice to have an exact chronicle for four hundred years preceding the year 1600, diſtinguiſhing the true plague from other mortal epidemic diſeaſes. I have been led into this digreſſion, partly from a motive of vindicating Sydenham from what I conceive to have been aſcribed to him from inadvertence, and, at the ſame time to point out a deſideratum in the hiſtory of the plague, which might, perhaps, be eaſily ſupplied.

What length of time the peſtiferous miaſmata may be preſerved in an active ſtate, in ſubſtances to which they adhere, is not known. The interval between the plagues of 1625 and 1630 was ſo ſhort, that the latter may be ſuppoſed owing to contagion retained in fomites ſince the year 1726; but ſeeing the bills of mortality for 1629 contain no peſtilential burials, and make mention only of ſeven in the two preceding years, it is more probable, for reaſons before aſſigned, that the plague of 1630 took its origin, like the others, from foreign contagion.

Experience in Syria is againſt the notion of peſtiferous miaſmata being retained long in apparel, furniture, and other things liable in common uſe to ventilation. In the intervals between the plagues of Aleppo, the city remains abſolutely free. Fevers indeed are ſometimes met with, attended with ſwelling of the parotid glands, which, when a peſtilence has been predicted by the aſtrologers, or the ſuppoſed term of the periodical return of the plague approaches, occaſion tranſient alarm; but perſons practiſed in the plague are able to diſtinguiſh the difference in the

[17] Some Remarks on Three Treatiſes, p. 23.

con-

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concomitant ſymptoms. The plague is never ſporadic there, except in its beginning and decline; in the firſt caſe it ſoon becomes epidemical, in the latter it is no more than the epidemic tending to its termination: it never ſubſiſts for any length of time in a few ſcattered inſtances, without conſequence. This alſo increaſes my ſuſpicion, that the true plague did not continue uninterruptedly at London, in the laſt century, as repreſented in the bills of mortality.

Whether its continuance in a far leſs ambiguous ſtate, from the year 1603 to 1612, and from 1636 to 1649, can be imputed to the neglect of precautions ſimilar to thoſe practiſed at Marſeilles, is a point on which a more critical review of the bills of mortality and the domeſtic annals of the times, than it is at preſent in my power to attempt, would throw conſiderable light.

A general quarantine, and purification of ſo extenſive a city as London, I conceive to have been impracticable at the end of the years 1603, 1625, and 1636, when almoſt every pariſh had been infected. But in the years 1604 and 605, when the burials were reduced to one thouſand, and in 1638 and 1639, when reduced to leſs than half that number, the expurgation of houſes, and a ſpeedy ſeparation of the ſick from the ſound, might, at leaſt in ſome degree, have been effected; and might probably have prevented ſo great an increaſe of mortality in the ſubſequent years. But this is all along upon a ſuppoſition of the plague being kept up by contagious matter already in the town; for when there is a chance alſo of ſupplies being brought from other places, all internal police, while the peſtilential conſtitution laſts, will be ineffectual, without a ſtop being put to foreign intercourſe: as was apparent from what happened at Marſeilles in 1722.

CHAP. VII.

CHAP. VII.

Recapitulation—Infection by immediate contact—Through the medium of the air—By a fomes—The plague not equally contagious in all ſtages of the peſtilential ſeaſon—Various properties of contagion—Popular dread of infection, &c.

IN treating of contagion, I have all along purpoſely avoided diſquiſitions into the ſpecific nature of the ſuppoſed peſtilential miaſmata, and the inviſible manner of their operation on the fluids or ſolids of the human frame. Various theories propoſed on this ſubject derive much from ingenious fancy, but very little from direct experiment: or general concluſions have been too haſtily drawn from a few experiments, and analogical reaſoning has been much too freely indulged. The properties of contagion are only to be collected from their viſible effects; ſo far as theſe are aſcertained, no further, our knowledge can be ſaid to extend.

In the foregoing chapters, I have endeavoured to ſhow the various ſenſes in which the term contagion has been uſed. In a review of the laſt memorable plague at Marſeilles, I have attempted to trace the progreſs of its contagion, and have produced ſuch inſtances as might ſerve to mark its viſible properties; collecting ſimilar inſtances occaſionally from other countries by way of elucidation. I have fairly ſtated the principal objections made to the commonly received opinion on peſtilential contagion, ſo far as they went upon facts, and have endeavoured to refute them, by an impartial examination of the facts produced in their ſupport. Laſtly, in reſpect to the concluſions drawn from the hiſtory of the plague at Marſeilles, I have always ſubjoined, what appeared to me the ſtrongeſt arguments brought againſt them, either in the expreſs words of the author, or, if in abſtract, it was always my intention to ſtate them ſcrupulouſly in their full force.

Theſe

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Theſe various matters, leading further than was at firſt intended, have engaged me inſenſibly in digreſſions, and ſometimes into criticiſm on certain writers. I ſhall therefore dedicate this chapter to ſome remarks on the principal properties of contagion; collecting part of what has been ſcattered in the foregoing pages, and placing the whole together in a more connected view, unmixed with controverſy.

The plague is a contagious diſeaſe; that is, an emanation from a body diſeaſed, paſſing into one which is ſound, produces, in time, the ſame diſeaſe; and the perſon thus infected becomes in like manner capable of communicating the plague to others.

This emanation is received either by immediate contact with a diſeaſed body; or at ſome diſtance, through the medium of the air; or from ſubſtances which having imbibed the peſtiferous miaſmata, are capable of retaining them in an active ſtate, and occaſionally of communicating them, by contact or otherwiſe, not leſs malignant in power than when they iſſue from the original ſource. In which ever of theſe modes the emanation finds acceſs into a ſound body, the perſon ſo infected is ſaid to be infected by contagion. The ſchools have conferred on each mode a diſtinct name.

The firſt mode of contagion is by immediate contact with a diſeaſed body. It is an undoubted fact, that the plague is thus communicated, but it is not ſo certain, what particular ſtage of the diſeaſe is the moſt infectious.

I have had occaſion to remark before, that in the early period of a peſtilence, when the moſt fatal forms of the diſeaſe are prevalent, the aſſiſtants often eſcape unhurt. They do not however always eſcape; and I have known ſome who, to all appearance, muſt have contracted the infection on the firſt or ſecond day of the ſickneſs: judging from their never having afterwards approached

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Page 282 the event the same whether purgation was employed or not.

same Every effort of that kind by the police had no effect. —

283 Hence purification and quarantine law had no effect —

286 Even persons shut up in houses infected the year before remained unhurt —

1st Chapter of the 5th Book

495 Advantage of Clean Situations

Notes respecting the Plague at Messina in pages 327 and 514

27 Duty of the first Magistrate

55 Sporadic cases of the plague after after its greatest rage has ceased no proof of its recurrence the following year —

Ibid. advantages of early and authentic information —

Appendix 4. 2 Women escaped the infection. An Elder Bro: caught it died. — P. 7 — Do Escaped Sev! females P. 13 — Several females Do. 15 — Do. 18 — several —

proached the ſick, or been otherwiſe expoſed to contagion. When the diſtemper is ſpread univerſally, it is difficult to aſcertain caſes of this kind; becauſe it is often impoſſible to know, amid ſo many ſources of infection, when or where the taint was caught: but, ſo far as I could diſtinguiſh, in the advance of the ſeaſon, every ſtage of the diſeaſe was infectious; for in the various ſtages perſons who entered the chambers of the ſick, ſome ſooner, ſome later, were infected.

It is probable, however, that the danger incurred by approach to the ſick is leſs in the firſt ſtate than it becomes afterwards, though the diſeaſe itſelf may be no leſs contagious. In the progreſs of the diſeaſe, the bedding, the clothes of the ſick, and furniture of the chamber, may be ſuppoſed daily more and more impregnated with peſtiferous effluvia; ſo that perſons are often infected by barely entering the infected chamber, without touching the diſeaſed perſon. Hence the dreadful havock made by the plague in the ſmall houſes of the poor, who are deſtitute of the means of cleanlineſs, and remain ſeveral days without ſhifting the clothes in which they uſually ſleep.

Among people of condition, who ſleep in airy chambers, and where ſtrict attention is paid to cleanlineſs, the danger of infection is certainly leſſened. In ſuch families the diſtemper makes incomparably leſs havock; but thoſe more conſtantly about the ſick are nevertheleſs often infected, and then probably by immediate contact.

Doctor Mead was of opinion, that, with due cautions, attendance on the ſick, when lodged in clean and airy habitations, would be attended with no great danger[1]. This I underſtand as including medical attendants. But as thoſe are to be ſuppoſed always to touch the ſick, I can by no means conceive their riſk to

[1] Mead on the Plague, p. 100.

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be inconſiderable, in the moſt favourable ſituations, though it no doubt is leſs than in the confined dwellings of the poor.

The ſecond mode of contagion is by the medium of the air. The effluvia ariſing from the diſeaſed, received into the ambient air, form a peſtiferous atmoſphere, more or leſs impregnated with theſe effluvia, as it recedes from their ſource. That contagion is thus communicated in the chambers of the ſick, appears from perſons being infected without touching the diſeaſed body, or any thing in the room that may be ſuppoſed to harbour infection.

To what diſtance the tainted atmoſphere extends, is not yet known; but ſeveral facts render it probable that the effluvia, when once tranſmitted into the air, are ſoon diſperſed, blended with the common maſs, or otherwiſe ſuffer ſuch alteration as renders them innocuous at no great diſtance from their ſource. It is probable alſo that theſe effluvia ariſe, in an active ſtate, to no great height in the common atmoſphere. The ſecurity of perſons in an infected city, who, by being regularly ſhut up, avoid all communication, ſeems to be in favour of theſe conjectures[z].

The third mode of contagion is by ſubſtances which having imbibed the peſtiferous effluvia, are capable of retaining them in an active ſtate for ſome time; whence iſſuing again, a ſound perſon within their ſphere of action, or by contact, receives the infection in the ſame force as from the original ſource.

This contagion *per fomitem*, as it is termed, is of more extenſive influence than either of the other two: the diſtemper is not only ſpread in all quarters of a town, but tranſported to great diſtances, from one region to another.

[z] See Book 1. chap. vi.

I have

I have already mentioned the plague at Aleppo being conveyed into different ſtreets, remote from one another, by the Jewiſh ſaleſmen; and I have known ſeveral inſtances, in the ſpring, of Armenian waſher-women infected by tainted linen.

In 1762, inſtances were met with of the plague being introduced to families that had been ſhut up ſix weeks, by the fraudulent reception of tainted articles, or neglect of regulations. An accident in the Jeſuit Convent was owing to the latter cauſe[3]. In 1743, an Engliſh gentleman, during confinement, was infected by linen imprudently taken in from his laundreſs[4].

In the advance of the plague, the riſk of concourſe in the ſtreets, in the bazars, or at the bagnio, ariſes perhaps as much from the clothes of thoſe who frequent infected houſes, as from the perſons of convaleſcents who mingle in the crowd, and of ſuch as in the beginning of their ſickneſs, are able to walk about; for in crowding through the narrow bazars, people remain long in the preſs together. The proveditores employed by the families ſhut up, frequently convey the plague into their own houſes, ſometime before they themſelves are taken ill. I have known inſtances of a like kind in families of the native ſurgeons, whoſe ſhops are at a diſtance from their houſes. A perſon employed by me to bring intelligence, and occaſionally to viſit infected houſes, communicated the plague to his wife, but remained himſelf well all the time.

It is in this manner recent contagion is propagated in a large city, or conveyed from town to town not far diſtant; but when the infectious miaſmata happen to adhere to ſubſtances not expoſed to ventilation, or to merchandiſe which is ſoon cloſe packed up, they retain their vigour unimpaired for a long while; and in that ſtate are tranſported to other countries. How long they

[3] See Book 1. chap. vi.

[4] Natural Hiſtory of Aleppo.

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may thus be preſerved impriſoned, in the ſame climate; how far they are effected by length of voyage, through various climates, are circumſtances not hitherto aſcertained.

That they retain their activity in a three months voyage from the coaſt of Syria to Marſeilles, has been ſhown before in another place. What probability there is of their being diveſted of it in colder climates, will come more properly under conſideration in the following book: in which I ſhall alſo have an opportunity of explaining ſome of the various ways that merchandiſe may contract infection in the Levant; and alſo of detecting ſeveral errors or miſrepreſentations, reſpecting the practice of that country in times of peſtilence.

The plague, though a contagious diſeaſe, is not equally contagious in every period of the peſtilential ſeaſon. In the beginning, thoſe frequenting the ſick often eſcape unhurt, or one only out of ſeveral is infected. Of this the Journals afford ſeveral inſtances[5]. The eſcape of perſons employed about the ſick, proves a frequent cauſe of miſleading the popular opinion of the diſeaſe, and has in many inſtances occaſioned much miſchief, by encouraging the neglect of due precautions till too late.

The progreſs of the plague in the Keiſaria at Aleppo in March, 1761, is a proof of high contagion in an early period[6], and examples of a ſimilar kind were met with in ſome of the adjacent villages, early in the ſpring, as well as in the winter: owing, perhaps, to the ſmall, cloſe, crowded dwellings of the inhabitants, to which the air often has no other acceſs than by a narrow low door. To this cauſe alone I ſhould have always aſcribed the difference in the mortality commonly remarked, had I not ſeen infected houſes, ſeemingly the ſame as to ſituation, airineſs, and other circumſtances, ſuffering very unequally in degree; in

[5] Appendix, Caſe III. XII. XIV. XV. XVI. XXIV.

[6] See Book 1. chap. v.

ſome,

ſome, few or none of the attendants being infected, in others, few eſcaping unhurt. CHAP. VII.

In general, however, the contagion ſpreads much ſlower in the beginning of the ſeaſon than in its advance: the inſtances juſt mentioned are to be conſidered as exceptions to a general remark, which appears to have held true in moſt plagues. But difference in the ſpread of contagion, under circumſtances ſeemingly the ſame, is not confined to the beginning of the ſeaſon, being obſerved through all its ſtages: it is true, a much greater number of thoſe converſant with the ſick, are infected in the advanced ſeaſon; yet ſtill there is an unaccountable variation; and ſome expoſed every way to infection, as if invulnerable, remain ſound the whole ſeaſon.

The Journal affords ſome inſtances of perſons, who had expoſed themſelves two or three ſucceſſive ſeaſons, being attacked, at length, when the contagion was faſt on the decline, and the diſtemper had become, in all reſpects, milder[7].

Thoſe who thus long reſiſt infection, are commonly ſuppoſed to owe their eſcape to ſome peculiar power of conſtitution, enabling them to reſiſt the operation of the infectious effluvia; and when, at laſt, ſuch happen to fall a ſacrifice, it is aſcribed rather to an alteration in that undefined idioſyncracy, than to increaſe of intenſeneſs in the contagious property of the diſeaſe.

Could this idioſyncracy be diſcovered by human ſagacity, the perſon poſſeſt of it might, in the times of peſtilence, walk about with as little apprehenſion, as one who has had the ſmall-pox walks the crowded wards of a ſmall-pox hoſpital. But like the peſtilential conſtitution of the air, its preſence or abſence cannot be diſcovered. It does not ſeem to depend on the viſible varieties of habits and temperaments; it is found in both ſexes; in all

[7] Book 1. chap. vi.

ages,

BOOK III.

ages; the ſound and morbid poſſeſs it indiſcriminately; and, like the conſtitution of the air, it is alſo ſubject to change.

It is the remark of a very accurate obſervator, in treating of malignant contagious fevers, that a perſon is often immediately ſenſible of his having received an infection from its firſt attack; but that many are not ſenſible of this at firſt[8]. The latter part of this remark is the moſt applicable to the plague; for I never met with any inſtance of a perſon being ſenſible of the ſtroke at the moment of infection. The ſmell iſſuing from the ſick in the plague, in thoſe who were kept perfectly neat, was much leſs perceptible, than in the ſick during the eruptive fever of the ſmall-pox, or in ordinary petechial fevers. In the lower claſſes, where neatneſs is not to be expected, the ſmell of the ſick chamber was highly offenſive, and ſometimes produced head-achs and giddineſs. I have myſelf been ſenſible of theſe ſymptoms upon coming out from the ſordid dwellings of the poor. But the ſmell was not ſpecifically diſtinguiſhed, like that of the ſmall-pox, it was the common mephitical ſtench perceptible in all cloſe crowded chambers in that country, in every diſtemper; ſomewhat reſembling the ſcent retained in the clothes of priſoners long confined in jails.

Though, ſo far as I had occaſion to remark, perſons be not ſenſible, at the inſtant, of contracting the infection, its effects, for the moſt part become ſoon perceptible; in ſome within a few hours, in others within one, two, three, four days, or more: but on this point I ſpeak from narrow experience, it being ſeldom that one can form a probable gueſs. In the beginning of a peſtilence, when the ſick are very few, a perſon, not otherwiſe expoſed, who happens to be taken ill within a few hours after viſiting in an infected chamber, may be ſuppoſed to have there contracted the diſtemper. Of this I have known ſeveral examples; as I have of others taken ill after two, three, or more days. But

[8] Lind's Diſſertation on Fevers, p. 244.

when in the more advanced ſeaſon a perſon is taken ill in like manner, there being then many other ways of catching the infection, his ſeizure cannot with equal probability be pronounced a conſequence of ſuch an accidental viſit.

The difference in the time of the infection diſcovering itſelf, may proceed from the variety of conſtitutions; other cauſes may likewiſe co-operate. Intemperance, and certain affections of the mind, may not only prediſpoſe to the reception of the peſtiferous miaſmata, but, when received, may haſten their operation. I met with no inſtance of intemperance producing this effect, but think I have of the other. In caſes where the diſeaſe was not diſcovered to be the plague, till upon the eruption of buboes after two or three days, I have known ſeveral perſons who had, till then, without the leaſt ſuſpicion, frequented the ſick, ſtruck ſuddenly with a panic, and imagine themſelves ill. They felt ſhooting pains in their groins, confuſion in the head, and a loathing. Though in ſome theſe complaints were purely imaginary, and ſoon vaniſhed, in others they proved real; the ſymptoms increaſing, and being followed by eruptions. In ſuch caſes, I ſuſpected the latent infection to have been excited by terror.

How long the infection may remain inert in the habit, I apprehend to be a circumſtance not hitherto aſcertained. A quarantine of twenty-eight or thirty days is, at Marſeilles, deemed ſufficient for paſſengers from the Levant bringing foul patents; in which time it is conceived any latent taint muſt diſcover itſelf; and, being fumigated at the end of that term, together with their baggage, they are admitted to communication without further ſcruple. Experience here ſeems to fix a ſafe period; though, perhaps, the quarantine might be abridged in reſpect to paſſengers.

From what I obſerved at Aleppo, I was inclined to think the infection rarely remains latent beyond ten days: but wider experience is requiſite to determine a matter of ſo much conſequence,

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quence. The clothes, and other packed baggage of paſſengers, who, after a voyage from places infected, enter ſound into the Lazaretto, are more to be dreaded than their perſons. A paſſenger from the Levant, who was ſeized with the plague a few days after coming out of the Lazaretto of Marſeilles, moſt probably was infected either from his own baggage, or by other communication after his entering the town[9].

As I do not conceive the infection remains many days inert in the body, ſo when once its operation is announced by viſible ſigns of diſorder, its progreſs is always rapid; I never met with any inſtance where it hung ambiguouſly about a perſon more than two or three days. In this circumſtance it differs materially from certain malignant infections which are found ſometimes to continue about a perſon many days, nay weeks, diſcovering themſelves by irregular ſhiverings, previouſly to the complete formation of the diſeaſe[10].

As it is not preciſely known how ſoon a perſon infected becomes contagious, ſo neither is it known at what period the power of communicating the diſeaſe to others ceaſes in convaleſcents from the plague. Till ſuch time as future experience ſhall have eſtabliſhed ſome degree of certainty, it would ſeem prudent to ſuſpect all convaleſcents as long as any ſymptoms of diſorder remain perceptible; and more eſpecially with regard to ſuch in whom the buboes continue open[11]. Though a ſound perſon coming from an infected place, being ſtripped of his clothes, fumigated, and ſeparated from his baggage, might, perhaps, ſafely be admitted to pratique, after a ſhort quarantine; there being more to be apprehended from infection adhering to the things he brings along with him, than from his own perſon; the caſe is different with one recovering from the plague, who may carry

[9] Relat. Hiſt. p. 43, 73. Traité de la Peſte, p. ii. p. 198.
[10] Lind on Fevers, p. 245.
[11] Book 2. chap. vi.

within

ithin him the ſeeds of contagion, beyond the reach of all external means of purification. It is not improbable that in old ſinuous ulcers, conſequent to buboes, the matter diſcharged may loſe its contagious property before the healing of the ſore; but all open peſtilential ulcers ſhould be held infectious till after the expiration of two months from the firſt attack; and the patient ſhould be ſecluded accordingly. Prudence at leaſt ſeems to dictate this, till ſuch time as direct experiment ſhall have ſhown the precaution to be ſuperfluous. The deciſion, on this point, of the medical conſultation at Marſeilles, was grounded on a vague hypotheſis [12]. CHAP. VII.

The plague may attack the ſame perſon more than once, even in the ſame ſeaſon; but it has been already ſhown, that ſuch caſes are proportionally very rare [13]. Convaleſcents, in like manner, are much leſs prone to relapſe, in the plague, than in other malignant contagious fevers [14]. In the firſt circumſtance the plague differs from the ſmall-pox, which never attacks twice; in the ſecond, both diſeaſes agree, as convaleſcents in both recover very well in the wards of an hoſpital, without apparently being affected by the infectious atmoſphere, which few who have not before gone through the diſtemper, could breathe with ſafety.

Having in a ſummary manner recapitulated the principal properties of peſtilential contagion, ſo far as they ſeem eſtabliſhed in experience, I ſhall conclude with a few reflections on the dread almoſt univerſally entertained of that contagion.

Every nation that has experienced the calamities attending the plague, looks forward to its return with awful anxiety and apprehenſion. The fear of contracting a diſtemper inevitably mor-

[12] See before, book 2. chap. vi. p. 309

[13] Ibid. p. 314.

[14] Lind on Fevers, p. 245.

BOOK III.

tal, and of periſhing, deprived of the uſual conſolations in ordinary maladies, predominates ſo irreſiſtibly, as to diſſolve the ſocial ties of humanity; and often, in the poliſhed cities of Europe, produces ſcenes of horror, anarchy, and public diſorder, unknown in countries deemed leſs civilized.

To eradicate this fear by declaring the plague to be not contagious, and a diſeaſe eaſily cured[15], is a vain, and, in its conſequences, a deſtructive expedient. The common ſenſe of mankind revolts againſt propoſitions ſo inconſiſtent with the annals of hiſtory; or if, in the beginning of a peſtilence, the miſled populace ſhould become dupes to a wretched policy that flatters their wiſhes, the illuſion, as the ſeaſon advances, will ſoon vaniſh before the woful conviction of hourly experience.

But though the dread of contagion neither can, nor ought to be eradicated from the minds of men, it may, conſiſtently with truth, be moderated; and reduced within bounds equally ſubſervient to the ſecuring ſubmiſſion to regulations calculated for the general ſafety, and to the encouragement of thoſe called upon by their ſtations to expoſe themſelves to danger, in the public ſervice.

That all thoſe expoſed to the contagion do not contract it; and that all thoſe who are infected do not die; are poſitions perfectly compatible with that of the plague being a very contagious and mortal diſeaſe.

The diſtreſs of Marſeilles during the height of the plague in 1720, the accumulation of difficulties with which the magiſtrates had to contend, a great part of that time, were, perhaps, never exceeded in any city of Chriſtendom. Yet many of the inhabitants of Marſeilles eſcaped infection; and the proportion would

[15] Journal of the Plague at Marſeilles, p. 56.

have

have been greater, had it been practicable, in the city, to have proſecuted exactly the ſame meaſures which were attended with ſuch marked ſucceſs on board the gallies[16].

London and other large cities afford inſtances of great numbers of the inhabitants, even of thoſe who remained all the time in town, having eſcaped the infection: it was a very conſiderable plague in which one-third were infected. At Marſeilles a larger proportion ſuffered, owing partly to neglect on the part of the police in the beginning, and to a complication of other cauſes, which, in the ſequel, involved the city in anarchy, and dreadful diſtreſſes of every kind.

But not only many of thoſe purſuing their ordinary courſe of life eſcaped the plague; but a certain proportion alſo of thoſe more dangerouſly employed about the ſick remained unhurt, as has been repeatedly ſhown in the foregoing pages.

As all are not equally ſuſceptible of contagion, ſo, of the infected, many eſcape not merely with life, but, comparatively with ſeveral ordinary diſtempers, ſuffer very little in the courſe of the diſeaſe. A conſiderable proportion of thoſe who recover were but ſlightly diſordered[17].

The approach of a peſtilence ought to arouſe to vigilance, not plunge us in deſpondence. Timely precaution may debar its acceſs, or, failing in that, may alleviate its attendant evils, and reſtrain its devaſtation. It cannot become epidemical without the concurrence of a certain ſtate of air, which may happen to be remote. Many eſcape infection in ſeaſons the moſt favourable to

[16] In the gallies and arſenal at Marſeilles there were about ten thouſand perſons, of which twelve hundred only were infected, and of thoſe one-half recovered. This ſeems to have been juſtly aſcribed to the wiſe regulations early eſtabliſhed, and rigorouſly maintained all the time. Relation Hiſtorique, p. 68.

[17] See book 2. chap. iii.

BOOK III.

its propagation; and ſo far is the diſeaſe from being infallibly mortal, that, upon the whole, a conſiderable proportion of the infected recover.

Theſe I conſider as conſolatory facts, confirmed by experience; and which may fitly be oppoſed to the popular notions of contagion, ſo apt to invade the imagination in moments of ſurprize and diſmay. They may contribute to animate thoſe who, by their ſtations, are called forth to expoſe their lives for the public welfare; but ought never to be miſapplied in encouraging a wanton temerity, or to countenance the neglect of human precautions.

A peſtilential ſtate of the air, diſcoverable alone in its effects, cannot be foretold; and a conſtitutional prediſpoſition to admit or to reſiſt infection, is accompanied with no conſciouſneſs in the poſſeſſor.

In this dark uncertainty the conduct of the magiſtrate ought to be regulated on the ſuppoſition that the peſtilential ſeaſon is impendent; the private individual ought not too confidently to reckon himſelf conſtitutionally exempt from infection. Both may indeed happen to be miſtaken, and the precautions of both may prove ſuperfluous; but where the public and private ſafety are ſo intimately concerned, preſervative meaſures are juſtifiable, though grounded on ſimple probability: if deferred till doubt be turned into conviction, they will come too late.

As no one can wiſely preſume that he himſelf, or his family, are conſtitutionally unſuſceptible of infection, it becomes the duty of all to concur with the magiſtrate, by a ready and unreſerved ſubmiſſion to ſuch regulations as the Council of Health may judge beſt for the general ſafety. A good citizen will conſider the various inconveniencies attending them, as a common misfortune, inſeparable from the condition of the times; and will

conſole

CHAP. VII.

conſole himſelf with the reflection of their ſhort duration, ſhould that alter. Should they prove to have been unneceſſary, it will be an agreeable diſappointment: on another ſuppoſition, they may become the means of preventing inconveniencies of more moment, of obviating the neceſſity of much more ſevere reſtrictions, and perhaps of ſaving a populous city from extreme miſery, and irreparable devaſtation.

A

TREATISE

OF THE

PLAGUE.

BOOK IV.

Of Quarantines.

CHAP. I.

CHAP. I.

Misrepresentations relative to the Levant—Europeans in Turkey not exempt from infection—They use precautions for their preservation—Some objections to the plague being conveyed in merchandise considered.

THAT the plague is a disease highly contagious, and in what manner its contagion is propagated, have been fully shown in the foregoing book. The methods that have been proposed for the preservation of mankind against that contagion, are next to be considered, and fall naturally under the three following heads. Regulations expedient in foreign countries from which suspected merchandise is usually brought; the precautions necessary in the reception of persons and goods from suspicious places, on their arrival; and lastly, no human precautions being infallible, the political regulations which become requisite when the plague, surmounting the barriers opposed by the magistrate, unhap-

BOOK IV.

unhappily makes its way into the place. The various matters comprehended under theſe heads, the firſt excepted, have, particularly by foreign authors, been amply treated of. I ſhall therefore enlarge only on the firſt, and confine myſelf to ſome remarks on the principal points of the others, referring, for a more minute detail, to ſome of thoſe foreigners who have written on the ſubject profeſſedly.

But it may be proper previouſly to diſcuſs ſome general objections to all ſuch preſervative regulations as are founded on the generally received doctrine of contagion, and which have been condemned either as altogether unneceſſary, or as being inadequate to the purpoſe intended.

Objections of the firſt kind are grounded on a ſuppoſition of the plague not being contagious; or, though admitted, in ſome ſenſe, to be contagious, that no goods or merchandiſe, of whatever denomination, are capable of conveying or communicating the infection. In regard to the firſt, I ſhall paſs it entirely over; and indeed, reſpecting the ſecond, might alſo refer to the foregoing book; but as thoſe who contend for the impoſſibility of infection being propagated by merchandiſe, found their chief arguments on the practice of merchants reſident in the Levant, which practice has, in ſeveral inſtances, been ſtrangely miſrepreſented, I have reſerved the detection of ſome of thoſe miſrepreſentations for this place.

" The common practice of all ſorts of men in Turkey, not
" only of the Turks, that are ſuppoſed to be infatuated with
" their notions about predeſtination . . . . . but even the prac-
" tice of Engliſh, French, and of other ſtrangers, ſhow that
" their conſtant experience in that country ſets them above any
" fears of taking the fatal diſeaſe from merchant's goods. One
" cuſtom of the merchants is very particular, and a determining
" experiment in this diſpute: for they, in very hot days, take

" their walks in lanes, and in the ſhades made with the packs CHAP. I.
" of flax; though that is an infamous plague-keeper, and is
" brought from Cairo, famed for being the fountain and granary
" of plagues, where they are ſuppoſed to be bred, and from
" thence propagated to all other countries. Nay, a head of flax
" is hung out of every pack for a ſample of the whole; which
" thoſe merchants make no doubt to examine, every bargain they
" make. So little do they know of a plague of peſtilence being
" conveyed by goods, that they handle and examine them intre-
" pidly: even flax of the growth of Grand Cairo[1].

" Would we convert (ſays the ſame writer in another work)
" any one from the fanaticiſm of the plague being conveyed in
" goods; I deſire him to travel into Turkey, and there view the
" behaviour of the Turks, Greeks, or Franks in the time of the
" plague. He will be aſtoniſhed to ſee the familiarity his coun-
" trymen contract with the moſt dangerous diſtemper; and if
" his courage does not lead him to ſhake off his notions, yet he
" may prove a qualified hiſtorian of the madneſs of others,
" which perhaps he may call their reaſonable behaviour. Thus
" has every nation, that have commerce with the Turks, been
" cured of ſuch falſe notions by the practice and experience of
" the Turks. We know (continues he) by the reſiding of our
" merchants in various parts of the Mahometan dominions, how
" to judge in the matter of carrying a plague in a bale of goods.
" I have converſed with ſome who lived in Grand Cairo; and
" who, in great demands for merchandiſe, during a plague, have
" not only attended in their warehouſes, when their goods were
" packed up, but have likewiſe aſſiſted in the buſineſs of flax
" and cotton, without any hurt in themſelves, or perceiving
" any in their labourers. The like accounts we have from Smyrna,
" Aleppo, Scanderoon, Conſtantinople, &c. But what is very

[1] Dr. Mead's Short Diſcourſe explained, p. 34.

BOOK IV. " particular, the dangerous cotton is the merchandiſe they ſmell " at, and handle more than any other[2].

" It is notorious (ſays another writer) to all traders, that the " Europeans converſe without any reſerve with the infected " Turks, and daily receive goods without fear or danger, from " the hands of thoſe who have not many hours to live. And if " goods there, in an infected air, are no wiſe dangerous or hurt- " ful to our conſtitution, that the bringing thoſe goods into a " purer air, ſhould make them pernicious, is a paradox too ſtrange " to be comprehended by common underſtanding[3]."

Doctor Pye had advanced as an argument againſt the plague being produced by one and the ſame ſpecific poiſon, " that Eu- " ropeans have ſometimes not been infected in Turkey, when " the plague raged there among the natives[4]." To which it was replied, " becauſe they either remove out of the way of it, or " ſhut themſelves up; but at Smyrna the French merchants " who uſe not that caution do ſeldom eſcape it[5]." The Doctor's anſwer to this, which had nearly ſtated the matter of fact, deſerves notice, " At Smyrna the Europeans do ſometimes ſhut " up, if the peſtilence happens there at a time when there is no " buſineſs going forward; but at Conſtantinople they never do, " and yet are not ſubject to the ſickneſs which rages among the " natives. As to what this writer (the remarker) affirms in re- " lation to the French, I am informed it is utterly falſe, for the " merchants tell me that there is not an inſtance that a French- " man has died there of the plague[6]" .... In another place, endeavouring to prove that the porters in the Lazaretto at Mar-

[2] Diſtinct Notions of the Plague, &c. p. 103, 105.

[3] Rational Enquiry into the Nature of the Plague, by J. Pringle, M. D. Lond. 1722.

[4] A Diſcourſe of the Plague, by G. Pye, p. 38.

[5] Remarks on Three Treatiſes, p. 60.

[6] The Remarks lately publiſhed, &c. p. 47.

ſeilles

ſeilles had not received their death from the Turkey bales, he ſays, "according to the report of merchants, Frenchmen are not "ſubject to the plague in Turkey; and it cannot be conceived "that ſo ſmall a quantity of infectious air as can be packed up and "brought in a bale of goods ſhould deſtroy them in France, or in "an air and climate diſtant and different; when the whole at-"moſphere of the ſame infectious air is found not to injure them "in the very infected places, and wherein it is allowed to be "bred and generated[7]."

The author mentioned on a former occaſion, and who it appears had himſelf been in Turkey, obſerves, "that the merchants "who have lived in Turkey can inform us, that after the plague "has ceaſed, they, or their ſervants, do handle and ſmell to the "cotton, &c. without receiving any injury. Every one who has "been in Turkey well knows that ſtevidores and ſailors often "work naked, in ſtoving the cotton. This is a laborious em-"ployment, and the hold of the ſhip is exceſſive hot. Farther, "the cotton packs or bales are continually handled and tumbled "about; the labourers too are often bare-footed, therefore they "cannot help treading continually upon the merchandiſe brought "aboard. Nay, I have ſeen the ſailors breakfaſt, and others "ſleep, on theſe bales of cotton, &c. Surely then, if the ſeeds of "contagion were lodged in cotton, theſe men could not eſcape. "It might ſtill be inſiſted on, that if cotton, &c. could imbibe "the malignity, the diſeaſe would frequently, nay every year, "be brought to us; for the plague has raged in the ſeveral parts "at the time our ſhips were taking in their lading.... Suppoſe "a ſhip took in her lading at any port, at the time when the "plague raged there (which I am certain has often been the "caſe) and ſuppoſe[8], &c."

Thus,

[7] The Remarks lately publiſhed, &c. p. 54.

[8] Ingram. p. 94, 99, & 72. This gentleman ſhould not have been introduced again, but that it might be imagined he ſpoke in this point from experience acquired

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Thus, according to the teſtimony of thoſe gentlemen, the European merchants reſident in the Levant, have learnt from long experience, that the notion of infection being communicated by merchandiſe is merely a vulgar prejudice; in conſequence of which they communicate freely with the natives in times of peſtilence, carry on their commerce in the ſame manner as at other times, and never ſhut up in their houſes by way of preſervation, except when they have no commercial concerns to call them abroad: nay, at Conſtantinople they never ſhut up at all. To all this it is added, that neither the merchants, or ſervants employed under them, ſuffer any harm from ſuch intercourſe, and that the former, at leaſt Frenchmen, are not, in Turkey, ſuſceptible of the plague.

Surely nothing can be more diametrically oppoſite to the real practice of the Levant, than the above repreſentation of it. The Venetians, who were the firſt and moſt conſtant traders into that part of the world, had inſtituted quarantines a century prior to the eſtabliſhment of the Engliſh in Turkey. Their merchants, reſident in the Levant, uſed the expedient of ſhutting up, in times of peſtilence, for the ſecurity of their perſons; the merchants of other nations followed the Venetian example; and in all places where the plague makes any conſiderable progreſs, the cuſtom has been maintained uninterruptedly to the preſent day. By that means, the Europeans have preſerved themſelves in times of moſt deſtructive plagues; and as there are no inſtances of their having ſuffered in confinement, except through neglect of preſervative regulations, there are many examples to prove that the Europeans are not exempt from infection, when, like others, expoſed to it; inſtances at Cyprus have been given before in the

on the ſpot. The foundation of the author's certainty of ſhips taking in their lading at places where the plague was raging, does not appear; it is inconſiſtent with a moſt expreſs order of the Levant Company. No Conſul, in ſuch circumſtances, could have granted a clean patent, and without one a ſhip would not have been received in England.

Hiſtorical Journal, and a plague never happens in Syria without furniſhing inſtances of Europeans, and their ſervants, ſuffering from procraſtinating the ſhutting up too long, or venturing from confinement too ſoon. The miſſionaries, conſiſting of perſons of various nations, ſuffer indiſcriminately with the natives, when equally expoſed. In the plague of 1760, one or two only died at Aleppo; the reſt had taken early precautions, and the ſeveral convents ſhut up prior to any of the merchants. But at Damaſcus, and other places where they viſited the infected, above nineteen franciſcan friars periſhed. Theſe were Italians, French, or Spaniards. Several alſo died at Cyprus in 1760, among which were an Iriſh friar, and a native of Flanders. In the late plague of Aleppo, all the European merchants eſcaped; but ſome French natives of the country fell ſacrifices in the beginning, and towards the end of the ſeaſon. In the plague of 1741, a French merchant died, and one of the Engliſh gentlemen was infected[9].

The information therefore which the authors above cited ſay they received from Turkey merchants, muſt either have been partial, or erroneous: or perhaps, in the zeal of ſupporting an argument, what were mentioned as ſingular inſtances, by the merchants, were, by the author, transformed into common occurrences. The inſtance of the flax at Cairo, bears marks of this complexion; for the remark is at once extended to Aleppo, where flax happens not to be one of the commodities dealt in by the Engliſh; and the cottons they export, I believe, are hardly ever brought into the Aleppo warehouſes.

It may further be remarked, that the experience of the merchants, though prior to the Quarantine Act of George the Firſt, muſt be ſuppoſed to refer to a period poſterior to the Year 1664, from which time the regulations of the Levant Company, for lading their ſhips abroad, were probably more ſtrict than they

[9] Natural Hiſtory of Aleppo.

had

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had been in the earlier ſtages of the trade[10]. It is not likely therefore that ſuch licentious proceedings in Turkey ſhould have been common, in any part of the interval between the plague of London in 1665, and the year 1720; and the Quarantine Act of the ninth year of Queen Anne, was ſtill in force at the time moſt of the authors, lately referred to, publiſhed their books.

In reſpect to the conceit of the Europeans or Franks not being ſubject to the plague in Turkey, beſides what has been ſaid above, numberleſs proofs might be produced of the contrary. I ſhall ſelect two, the one a few years after the Engliſh had been eſtabliſhed at Aleppo, the other ſo late as 1719, the year preceding the plague at Marſeilles. In 1589, the plague raged at Tripoly in Syria, in the ſummer; and M. Villamont, then on his travels, aſſerts, that it had deſtroyed forty of the French nation[11]. In 1719, the plague raged at Aleppo from March to the month of September, and ſeveral of the miſſionaries, who had expoſed themſelves, died[12].

[10] As I have no direct authority for ſaying the regulations were more ſtrict, I ſhall give the reaſon of my conjecture. In the directions of the College of Phyſicians, in the year 1636, the ſecond article runs thus. "It is likewiſe neceſſary that there be "care taken that neither men nor goods may come from any ſuſpected places be-"yond the ſeas, or in the land, without certificate of health, or elſe either to be "ſent ſuddenly away, or to be put to the Peſt-houſe, or ſuch like place, for forty "days (according to the cuſtom of Italy)" In the republication of theſe directions, in 1665, the title of the ſecond article is altered, from "*Men or goods from foreign "infected places*," to "Prevention of propagating the infection from place to place," and runs, "As the proviſion already made by authority upon occaſion of prohibit-"ing perſons and goods coming from foreign countries and places infected," &c. Whence it appears that their former advice was rendered unneceſſary by the interpoſition of authority, which had already eſtabliſhed a quarantine. The practice of bills of health was eſtabliſhed long before by the Turkey Company, in reſpect to their own ſhips; for an Engliſh traveller who was at Aleppo in 1596, mentions his having a clean patent, Syria being then free from the plague. Moryſon's Travels, p. 241, 243. An Engliſh writer, who publiſhed a very good Treatiſe on the Plague in 1592, mentions expreſsly the infection being propagated by clothes, &c. as well as by perſons. Simon Kellway, a Defenſative againſt the Plague. Lond. 1593.

[11] Voyage de Villamont, p. 562.

[12] Memoires des Miſſion, vol. iv. p. 82.

That

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That the Engliſh at Aleppo adopted from the firſt the ſame meaſures for their preſervation, which the other Europeans reſident there had done before them, can hardly admit of doubt: there is direct evidence of their having done it ſo early as the year 1600[13]. In reſpect to the French, one of their own writers in 1720, aſſerts it to be a great miſtake, which a ſtrong advocate againſt contagion wiſhed to propagate, that the French merchants in the Levant communicate freely with the Turks in times of peſtilence. "On n'eſt pas bien inſtruit (ſays M. Peiſſonel) "lorſqu'on nous dit que dans le Levant ceux de la nation Fran-"çoiſe vont chez le Turc en temps de peſte, examiner, toucher "& acheter, toute ſorte de marchandiſes. Nous ſcavons cer-"tainement que des le premier ſoupçon de peſte, tous les Fran-"çois ſe renferment dans leurs quartiers, d'ou ils ne ſortent "pas, & ou, en recevant tout avec precaution, ils trouvent le "moyen de ſe conſerver en ſanté au milieu des Turcs em-"peſtés[14]."

I have ſuggeſted it as probable, that the regulations of the Levant Company, relative to the lading their annual ſhips abroad, became ſtricter after the interference of royal authority in 1664; but from what is ſaid by Sir James Porter, embaſſador at the port for ſeveral years, it would appear the care taken by the factories in Turkey in ſhipping their goods in ſuſpicious times, was long prior to that period. I ſhall tranſcribe the whole paſſage, as containing a more diſtinct account than any I have met with elſewhere; though I am in ſome doubt whether what is ſaid of airing and purifying goods, before they are ſhipped, is in ſtrictneſs applicable univerſally to the ports of Turkey.

"All communication of the infection muſt ariſe either from "men or merchandiſe; with regard to the former, when there

[13] See the chaplain of Aleppo's account in that year, book iii. chap. v.

[14] Diſſertation ſur les opinions anciennes & modernes touchant la peſte. Relat. Hiſtorique, p. 402.

"is

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" is the leaſt ſuſpicion of a plague in any ſea-port town of " Turkey, or any neighbouring village, the maſters of ſhips, the " merchants, and the conſul are particularly careful and vigi- " lant to keep the veſſel at a proper diſtance in the port, and " not to ſuffer any of the ſhip's company to go on ſhore, at the " ſame time they will not permit a living ſoul to come on " board, or any goods ſuſceptible of infection to approach the " veſſel. All ſeamen are ſtrictly forbid to go near it; and to do " them juſtice they punctually obey the order: for when the " fear of that diſeaſe is once infuſed into their minds, they dread " it more than a wreck, or a cannon ball.

" The Levant Company's orders, both with regard to men " and merchandiſe before ſhipping, to prevent infection, have " been always ſtrictly obſerved in Turkey: when they had their " general ſhips, their ſeamen were under ſuch command, that " they conſidered themſelves as inhabitants of the veſſel; there " ſcarce appeared a new face on board from year to year; they " were moſt of them men that had families at home, and kept " a watchful eye over each other's conduct, to prevent irregula- " rity and infection, inſomuch that from the firſt origin of the " charter not one of them ever died of the plague. Orders of " the ſame nature were as effectually enforced with regard to " merchandiſe, and as punctually executed as at a Venetian or " French Lazaretto; airing, purifying, and every poſſible pre- " caution was taken before the goods were ſhipped; and it is to " be hoped, we may equally depend upon the execution of the " ſame orders which ſubſiſt at preſent [15]."

From what has been ſaid, it is ſufficiently apparent that the anonymous author of Diſtinct Notions of the Plague, as well as Dr. Pye and others, have given a very erroneous repreſentation of the practice of the merchants in the Levant; and conſequently

[15] Obſervations on the Turks, 2d edit. p. 442. I ſhall hereafter have occaſion to give a particular account of theſe orders.

that

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that their argument for the impoſſibility of infection being conveyed in merchandiſe, grounded on the increaſe of the Turkey trade ſince 1665, and which, as they contend, had it been poſſible, could not fail to have frequently introduced the plague into England in ſo long a ſeries of years, loſes much of its force, though at firſt ſpecious.

"Has not merchandiſe been brought from many parts of "Turkey, all which have very deſervedly an ill name for "the peſtilence, that very commonly rages among them? And "how comes it to paſs that during this conſtant, and uninterrupted commerce, when ſoft and porous goods, the proper "fomes, have been brought from Smyrna, Scanderoon, Aleppo, "Conſtantinople, and other parts, the peſtilence has never taken "a journey hither, in all appearance, thoſe fifty-five years? In "all that time Turkey goods have not ſerved a quarantine, nor "viſited any other Lazarettos, beſides the companies cellars; a "certain proof that goods very ſeldom, or ever, bring a plague "into a country[16]. It is acknowledged that the Turkey company has never once brought us over a plague, ſince their firſt "eſtabliſhment, yet their merchandiſe has always been returned, and from countries where the plague was making great "deſtruction; inſomuch that we never once ſuſpected any ſickneſs being brought by them, excepting a groundleſs jealouſy "in 1665[17]."

Doctor Pye repeats the ſame arguments[18]; and a Doctor Pringle follows in the ſame ſtrain—"Turkey being ſeldom free from "a peſtilential diſtemper, our trade there being increaſed ſo "conſiderably within theſe fifty years paſt, it would be impoſ"ſible for us to eſcape it (who never made uſe of the Italian

[16] Short Diſcourſe explained, p. 33.
[17] Diſtinct Notions of the Plague, p. 105.
[18] Diſcourſe of the Plague, p. 37.

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" cuſtom) if goods were ſufficient to communicate it[19]. It muſt, " (ſays Doctor Browne) create our wonder and admiration (if " contagion was imported in cotton in 1665) how we have " eſcaped from infection ſo many years as are paſt ſince, conſi- " dering ſo many plagues as have happened in ſo many parts of " Turkey to which we trade, and from whence we bring cotton, " mohair, and the like dangerous commodities. Now it is hardly " poſſible to think, but in all this time, conſidering the increaſe " of trade from thoſe parts within the laſt fifty years, but that " ſome goods muſt have been packed up by perſons infected with " the plague, either at Conſtantinople, Smyrna, &c. beſides the " great quantities of coffee we import from Grand Cairo by way " of Alexandria and Roſetta; the canvas bags of which may re- " tain contagion[20]."

Was the real practice of the Levant ſuch as thoſe who urge the above arguments have repreſented it to be; did the merchants in times of peſtilence communicate freely with the Turks; carry on traffic; ſhip their goods while the plague was ſtill raging; and if the goods ſo ſhipped were landed on their arrival in England, without regard to any preventive regulations whatever; it certainly would be a juſt matter of wonder, not only that the plague ſhould not have been imported ſo much as once in a century, but alſo that ſo few of the merchants in the Levant, and of the ſailors who navigate their ſhips, ſhould die of the plague. This admiration, however, will partly ſubſide, when the repreſentation by which it was excited is found to be highly partial, or purely fictitious; and the unprejudiced examiner, finding precautions abroad, as well as at home, have never been altogether neglected, may be inclined to aſcribe the preſervation of England, at leaſt in ſome meaſure, to thoſe precautions. At the ſame time, however, much muſt be allowed for the abſence

[19] Rational Enquiry, p. 8.

[20] Practical Treatiſe of the Plague, p. 12. By Joſ. Browne, L. L. M. D. Lond. 1720.

of

of that peſtilential conſtitution of the air, without the concurrence of which imported contagion, even in Turkey, does not ſpread; for, however inclined to think favourably of eſtabliſhed regulations, I am much in doubt whether they have, at all times, been obſerved with ſuch ſtrictneſs abroad as to remove all cauſe for ſuſpicions "that ſome goods muſt have been packed up by per-"ſons infected with the plague, either at Conſtantinople, Smyrna, "Scanderoon, Aleppo, or Grand Cairo:" ſuſpicions which increaſed in probability after the diſuſe of annual ſhips, in conſequence of the interference of Parliament with the Levant Company's charter, about the year 1744[21]. CHAP. I.

To the miſrepreſentations relative to the Levant, may be added the aſſertion that the fear of infection by goods, and the practice of quarantines in England, are only of very late date. As early at leaſt as the beginning of the laſt century, quarantines for foreign goods are recommended by the College of Phyſicians *according to the cuſtom of Italy*, and, as was remarked before, were enjoined by royal authority in 1664. In 1669, Aleppo was viſited by a very ſevere plague[22], and there can be no doubt the quarantine eſtabliſhed ſo lately before, was renewed on this occaſion, ſuppoſing it had been diſcontinued: nor from any thing that appears to the contrary, is there cauſe for thinking it was not hereafter occaſionally renewed, according to exigencies; for from that period to 1719, the plague reviſited Aleppo ſeveral times[23]; and at Conſtantinople, and other Turkiſh ſea-ports, its return was ſtill more frequent. Early in the preſent century, the plague raged in various places on the Continent; and a quarantine act of parliament paſſed in the ninth year of Queen Anne. Between the eſtabliſhment of the Levant Company in 1581, and the year 1665, London is ſaid to have been viſited with four great plagues,

[21] Porter's Obſervations, p. 372.

[22] D'Arvieux ſays, it carried off 100,000 people, vol. vi. p. 414.

[23] Nat. Hiſt. of Aleppo.

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ſome of which continued for ſeveral ſucceſſive years. Since 1666, near one hundred and twenty years are now elapſed, and the plague has never appeared in England, though not leſs than uſually common in moſt of the trading towns in Turkey.

CHAP. II.

Account of the introduction of plagues into England, at various times, imperfect—Introduction of the plague at Meſſina in 1743—That the notion of contagion, or of its being conveyed in merchandiſe, is of late date, ſhown to be erroneous—The Arabian writers ſilent on contagion—Other objections to infection being conveyed in merchandiſe enumerated.

WITHOUT engaging in a ſpeculative queſtion, whether the air of itſelf is capable of producing the true plague, independent of imported contagion, in a place where it is not an endemical diſeaſe[1]; the having, in medical hiſtory, met with no teſtimony of its being ever bred in Britain, or indeed on the Continent of Europe, is ſufficient to induce me to concur in opinion with thoſe who hold it to have been always imported from other countries.

That the manner in which it is imported, or introduced, cannot always be preciſely traced, I conſider as a ſlight objection to this opinion; becauſe it cannot well happen otherwiſe in a country encircled by a vaſt extent of ſea coaſt, or in a large city of extenſive commerce, where ſo many avenues are conſtantly open for its reception. But in ſmaller territories, and more confined in-

[1] Arbuthnot on Air, p. 180.

tercourſe,

tercourſe, the progreſs of contagion has been diſtinctly traced, and has been ſucceſsfully ſtopped by proper precautions. CHAP. II.

In this view, it is no wonder that ſo little ſatisfactory is to be found in the Engliſh Chronicles, relating to the importation of plagues. The dreadful peſtilence of 1348, is ſaid to have made its firſt appearance in England, in the ſea-port towns of Dorſetſhire; thence to have paſſed into Devonſhire and Somerſetſhire, as far as Briſtol; and though the Glouceſterſhire people cut off all communication with that city, yet at length it reached Glouceſter, Oxford and London[2]. The plague of 1563 is ſaid to have been brought into England by the ſoldiers who had been at the ſiege of Havre de Grace[3].

Very imperfect accounts are met with of the commencement of plagues in the 17th century. That of 1609 (which by the way appears, by the bills of mortality, to have been a continuation of that of 1603) is ſaid to have begun among certain ſeamen in Whitechapel; that of 1630 to have been imported from Turkey in a bale of carpets; and that of 1636 to have been brought from Amſterdam[4]. The laſt plague of 1665 was ſaid to have been brought into Holland in a bale of cotton from Turkey, and from thence to have been imported into England[5].

The Levant Company, in their printed orders to their factories abroad, affirm that the plague was never brought to England by means of their commerce. Sir James Porter goes farther,

[2] Hiſtorical Account of the Plague, &c. p. 12, by R. Goodwin, M.D. Lond. 1743.

[3] Ibid. p. 22.

[4] Medela Peſtilentiæ, p. 2. Lond. 1665.

[5] Hodges, in a Letter to a Perſon of Quality, publiſhed 1666, ſays expreſsly, "After a moſt ſtrict and ſerious enquiry, by undoubted authorities, I find this peſt "was communicated to us from the Netherlands by way of contagion; and if, "moſt probable relations deceive me not, it came from Smyrna to Holland in a "parcel of infected goods."

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for he aſſerts that the plague was never brought into theſe kingdoms immediately from Turkey; without limitation to the commencement of the Levant Company's eſtabliſhment; and adds, moreover, that the Dutch never received the contagion from thence[6].

Theſe are very poſitive, but, at the ſame time, unſupported aſſertions. Sir James thinks he could make it clear to the cool reaſon of a Dutchman, but fears he would find more difficulty with his own countrymen, blinded with paſſion and prejudice. But ſurely any man, without being under the influence of either paſſion or prejudice, might reaſonably wiſh for ſomething more than ſimple aſſertion, relative to facts beyond the compaſs of the aſſertor's own experience.

When I ſaid before, that London had been viſited with four great plagues ſince the firſt eſtabliſhment of the Engliſh Levant Company, it was not my intention to inſinuate that the plague had always, or had ever been imported by commerce from that country. I have met with ſuſpicions, but with no poſitive proof of its having been ſo imported. Previouſly to the 16th century (according to Anderſon) "England carried on little or no commerce in her own ſhips, but from the year 1511 to the year 1534, divers tall ſhips of London, and of Southampton and Briſtol, had an unuſual Trade to Sicily, Candia and Chio, and ſometimes to Cyprus, and to Tripoly in Syria, and Byroot[7]." It may be remarked here, that in the two centuries immediately preceding the ſixteenth, England was no leſs frequently viſited by the plague than afterwards, which could not then be aſcribed to her Levant trade.

The great plague of 1348 was brought by certain ſhips from the Levant to Sicily, Piſa, Genoa, &c.[8] and ſince that period it

[6] Obſervations on the Turks, p. 41.
[7] Anderſon's Hiſtory of Commerce.
[8] Muratori Governi in tempo di Peſte, p. 3.

has

has found its way ſeveral times in the ſame manner, the laſt memorable inſtance being that of Meſſina in 1743. It will however appear, upon enquiry, that Italy has been leſs frequently viſited ſince the eſtabliſhment of quarantines and lazarettos in the maritime towns, though from the impoſſibility of always preventing breach of rules, they have not always proved infallible defences[9]. I know

[9] From the original letter formerly mentioned from a gentleman who reſided at Meſſina in the year 1743, giving a circumſtantial account of the progreſs of the plague in that place, I ſhall tranſcribe what is ſaid of the manner of its introduction, as a flagrant example of fraudulent impoſition on the Magiſtrates of Health. "Though you will naturally have ſeen various relations of the manner of the "plague's having been introduced at Meſſina, yet I am willing to begin by men- "tioning, that on the 20th of March, 1743, arrived in that port a Genoeſe tartan, "under Neapolitan colours, commanded by a Genoeſe padrone, by name Giacomo "Bozzo, though, when he put himſelf under the Neapolitan protection, he took "the name of Aniello Bara. The cargo conſiſted of wool, wheat, tobacco, and "ſome linens, loaded in ſeveral parts of the Morea that actually were infected, or "had been a very little time before infected with the plague; but the padrone, con- "cluding that he ſhould not be admitted at Meſſina, had he proceeded directly "thither from thoſe parts, treacherouſly touched at Miſſilongi in the Gulph of "Lepanto, over againſt Cephalonia, and was there furniſhed with a clean bill of "health, with which he proceeded to Meſſina. This he exhibited on his arrival, "in the uſual manner, and manifeſted only the wool and corn; declaring, upon "oath, that one of the ſailors had fallen into the ſea during the voyage, for which "reaſon there was one man on board leſs than ſpecified in the bill of health.

"This declaration, on oath, together with the exhibition of a clean bill of health, "induced the magiſtrates of the health office (who were then ignorant of the other "circumſtances of his having been firſt at the other infected parts of the Morea, "or that one or two of the ſailors had died, on board, of the plague) to admit the "veſſel to quarantine at the Lazaretto, wherein, with the uſual formalities, they "began to depoſit the wool and the corn; nor, according to human appearance, "would the infection have ever been introduced into the city, had it not been for a "fiſherman who afterwards, on his death-bed, diſcloſed the fatal ſecret of his "having found means, ſoon after the padrone's arrival, to receive from him in "the night ſome bales of tobacco, covered with infected canvas, and ſome pieces "of linens, which he carried by ſtealth to his own houſe, in a part of the city "called Pizzillari, where the diſtemper in effect firſt appeared; ſo that the running "aſhore of thoſe infected goods was the cauſe of all the fatal conſequences that en- "ſued;

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I know not at what period a regular Lazaretto was eſtabliſhed at Marſeilles, but it is remarkable that of twenty plagues mentioned in the records of that city, eleven happened in the 16th century, and only two in the 17th[10].

"The firſt commercial treaty with the Ottoman Porte, made "by any of the European monarchs, was (according to Anderſon) "in the year 1535, between Francis the Firſt, and Solyman the "Magnificent. The Venetian ſtate next obtained a commercial "treaty in 1580, a little while prior to the Engliſh." But both Venetian and French, particularly the former, had long before that time carried on a Levant trade; and even the Engliſh merchants had occaſionally viſited that country. The Venetians are ſaid to have obtained leave of the Pope, about the year 1150, to trade with the Infidels of Alexandria; and it appears from Belon that they had a Conſul eſtabliſhed at Aleppo in the year 1448[11]. The ſilence of that traveller, in reſpect to his countrymen, ſhows they had at that time no Conſul ſettled there; and indeed it is probable the French had no regular ſettlements in Syria, before the 16th century.

Quarantines were firſt inſtituted in Europe, about the year 1484[12]; and the Venetians are ſaid to have led the way. At what time

"ſued; which I mention in juſtification of the magiſtrates who took all the moſt "vigorous and prudent meaſures at the Lazaretto for the public preſervation; and "in diſcharge of their office afterwards couragiouſly ſacrificed their lives, devoting "themſelves, in a manner, to certain death: but they were betrayed by their ſub-"altern guards in whom they confided."

A ſtill more circumſtantial account of this matter is given in a book publiſhed at Naples in 1745—Memoria Iſtorica del Contagio della Citta da Meſſina, dell Anno 1740. Da Orazio Turriano.

[10] Relation Hiſtorique, p. 12.

[11] Belon's Obſ. lib ii. c. 102.

[12] "Se crediamo a Lorenzo Candio, e ad altri, nel 1478, eſſenda fiera la peſte, "furono introdotti rigori inuſitati, & cominciarono circa què tempi a dirizzarſi "Lazaretti

time other free cities of Italy, as Genoa, Florence, Piſa, &c. adopted the cuſtom, I have not learned; but it is highly probable all of them uſed occaſional precaution, though they might not have regular quarantines, as they came to have afterwards. It is clear, from the teſtimony of Boccacio, that Florence had uſed means for her preſervation in 1348[13]; and it appears that in the ſame plague, in England, communication with the city of Briſtol had been prohibited by the people of Glouceſterſhire[14]. CHAP. II.

This ſhows how groundleſs is the aſſertion that the notion of contagion took its riſe in Europe no earlier than the 16th century, and how abſurdly it has been aſcribed merely to political intrigue at the time of the Council of Trent[15]. "The Venetians (ſays a certain author) "were long poſſeſſed of the profitable Turkey "trade, and were almoſt the only merchants that traded into "Turkey, and furniſhed the weſtern parts of Europe with this

"Lazaretti (forſe prima ſi mandavano gl'infetti alle ſole capanne, praticate anche "dipoi in alcune città) & a metterſi pena la vita per ogni minima coſa." Muratori, lib. i. c. xi. p. 95.

If we give credit to Lorenzo Candio and others, the plague raging fiercely in the year 1478, regulations unuſually ſtrict were introduced; and about that time they began to conſtruct Lazarettos (probably before this they ſent infected perſons to ſolitary thatched cottages, a cuſtom ſince practiſed in ſome cities) and to make the ſmalleſt breach of rules a capital crime.

According to Mr. Howard, the Health Office at Venice was inſtituted in the year 1448. Account of Lazarettos, p. 12.

[13] "Et in quella non valendo alcuno ſenno, ne humano provedimento, per lo "quale fu da molte immonditie purgata la città da ufficiali ſopra cio ordinati; & "vietato l'entrarvi dentro a ciaſcuno infermo, & molti conſigli dati a conſervation "della ſanità." Boccacio Decameron, p. 2. Amſterd. 1679.

But in that plague, no prudence nor human precaution, could prevent the contagion from ſpreading. The city was cleared of much filth under the direction of officers appointed for that purpoſe; acceſs was denied to all ſick perſons, and many advices were propoſed for the preſervation of health.

[14] Goodwin, p. 12.

[15] Diſtinct Notions, p. 122.

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" merchandiſe; in all that time they had no notions of the " frequent plagues being conveyed in goods they brought home, " and were tranſported into other nations. And it is very re- " markable, that about the time they inſtituted officers of " health, and begun the practice of quarantines againſt mens " perſons, though not for merchandiſe, their trade fell ſenſibly " into decay. Our merchants about the ſame time made expe- " riments of the Turkey trade, and became proſelytes to this " Turkiſh opinion, that a plague is not conveyed in goods[16]."

The anachroniſm here is remarkable, for we have ſeen that the Venetians had inſtituted quarantines ſeventy years prior to the Council of Trent, and it is known that their trade continued to flouriſh for a century after that inſtitution. Its decline was owing to a concurrence of very different cauſes; among which may be reckoned the ſpirit of commerce diffuſed amongſt other nations, who began now to carry on trade in their own ſhips, which had, till that time, been chiefly carried on by Venetian ſhips. Our merchants were eſtabliſhed in Turkey about the year 1581, and it has been ſhown already, on a former occaſion, with what juſtice it can be ſaid they became proſelytes to the Turkiſh opinion, that a plague is not conveyed in goods. In the reſtriction of quarantines at Venice, to mens perſons, the aſſertion being ſupported by no authority, the author is not likely to be more accurate than he has ſhown himſelf to be in chronology.

If the notion of contagion being conveyed in merchandiſe, be found to be juſt, it is very immaterial whether it be an ancient or a modern notion. It were ſtrange to contend that it muſt be erroneous, becauſe not promulgated earlier. Something, however, like this argument is urged by the opponents of contagion. The ancient Greek phyſicians (it is ſaid) make no mention of the plague being contagious; the Arabians are equally ſilent,

[16] Diſtinct Notions of the Plague, p. 104.

though

though they practiſed in countries where the plague is frequent [17].

As to the ancient Greek phyſicians, I ſhall refer to thoſe who have been at ſome pains in the enquiry [18]; and only offer a ſhort remark on what is ſaid of the Arabian phyſicians.

The author of Diſtinct Notions of the Plague, refers to Mercurialis for the having ſearched the ancient writings of phyſicians, without being able to diſcover any opinion among them of the plague being communicated by a fomes; but when he himſelf talks of the "Arabian phyſicians, who relate the ſmall regard the Turks have to cotton, or other merchandiſe, or apparel, giving them the plague [19]," it is to be wiſhed he had mentioned in what part of their voluminous writings theſe relations are to be found. Rhazis and Avicenna are the only two authors named, but eſpecially the firſt; who, it is ſaid, lived to the age of one hundred and twenty, and muſt conſequently have had repeatedly opportunities of practiſing in the plague. But it was not adverted to, that thoſe great men practiſed in regions where the true plague rarely or never appears: and even ſuppoſing they had frequently practiſed in times of peſtilence, very ſubſtantial reaſons might be aſſigned for both, as Mohammedans, being ſilent on the ſubject of contagion. I ſhall only add further, that though Rhazis wrote fully and profeſſedly on the ſmall-pox, in a diſtinct Treatiſe, it will be difficult to point out any paſſage in that work expreſsly mentioning the diſeaſe being contagious.

[17] A writer in 1665 remarks, "that ſome made it an argument againſt the reality "of contagion, that the ſcripture doth not ſay the plague is infectious;" to which the author replies, "Why neither doth it ſay that whoredom breeds the pox." Kemp on the Plague, p. 16.

[18] Maſſaria Oper. in fol. p. 500.—Mead, p. 10.—Gaſtaldi, p. 712.

[19] Diſtinct Notions, p. 99.—Ingram, p. 65.

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It will be ſufficient barely to mention ſome of the other objections made to the poſſibility of the plague being conveyed in merchandiſe. "If goods (ſays Pye) receive infection, they muſt "have it from or by means of the air; unleſs it be ſuppoſed "that goods are kept in the bed-chambers of the ſick.—If it be "ſaid, that goods may be packed up by diſeaſed perſons, this is "very improbable; becauſe as packing of goods is a laborious "work, which requires a great deal of ſtrength, it cannot be "ſuppoſed that perſons ſick of the plague have ſtrength enough "for ſuch hard labour[20]. — If contagion could be conveyed "in goods, the people who are ſo cloſely pent up together on "ſhip board, muſt neceſſarily be infected, or at leaſt could not "eſcape upon opening the hold, on the ſhip's arrival in port. "Next to the mariners, the cuſtom-houſe officers, warehouſe-"men, and thoſe who open the bales muſt be liable; but there "is no inſtance of any having ever been infected. And laſtly, "that as there is no example of any of the mariners, on board "the Turkey ſhips dying of the plague, either in the paſſage "home, or after their arrival in port; ſo the diſtemper in Lon-"don has always broke out, not near the cuſtom-houſe, or "where goods are houſed, but in places remote and uncon-"nected with commerce, as Whitechapel, St. Giles, Clare-"market, &c.[21]

To anſwer theſe objections ſeparately, were to repeat what has already been ſaid on former occaſions. In whatever way goods receive infection in Turkey, the experience of Marſeilles ſhows they do receive it, and are capable of conveying it to a diſtance. This, though it does not amount to a proof that the plague may in the ſame manner be conveyed from Turkey to England, certainly furniſhes a ſtrong preſumption, and is fully ſufficient to juſtify preſervative precautions: at leaſt, till ſuch time as better arguments be produced againſt their expediency than thoſe merely

[20] Diſcourſe of the Plague, p. 37.

[21] Pringle's Rational Enquiry, p. 9.

hypo-

hypothetical, or such as are drawn from the length of voyage; for the ordinary passage of a ship from Scanderoon to London, is not longer than the passage of Chataud's vessel to Marseilles. CHAP. III.

CHAP. III.

A late writer's opinions concerning quarantines examined—Mistakes, relating to the growers of silk in Turkey, to their flying from their habitations, and to the plague's scarcely ever visiting parts where the silk is cultivated, corrected—Length of voyage from Turkey no security against infection—Levant Company's orders to their consuls regarding the shipping of goods in Turkey.

I SHOULD, in the preceeding chapter, have concluded my remarks on objections made to the necessity of quarantines, and to the probability of infection being imported in merchandise from the Levant, had I not thought it incumbent to take some notice of what has been published on the subject, by a later writer than any of those hitherto mentioned; whose authority being, on many accounts, highly respectable, might lead to errors into which, I conceive, the author himself was led through misinformation, respecting facts beyond the limits of his own observation.

"The sorts of merchandise (says Sir James Porter) thought "to be most susceptible of conveying the contagion, are silks, "cottons, mohair yarn, and goats wool; even the most timo-"rous cannot work up their imaginations so far as to find it in "box, wood, fruit, or drugs[1]." Whether the four last articles be altogether unsusceptible, is perhaps not quite so clear, nor

[1] Porter's Observations, p. 446.

would

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would a man be reckoned among the moſt timorous who might happen to entertain doubts, more eſpecially in reſpect to the canvas, mat, or other packages of drugs; unleſs an antidotal quality were conferred on all drugs, which hitherto has not been clearly ſhown to belong to any of them. Theſe articles, however, are generally deemed leſs ſuſceptible, and are uſually ſubjected to a ſhorter proceſs of purification [2].

"The ſilk growers, whether Chriſtians or Turks, have, as I "have been informed, diſtinct apartments for that purpoſe; they "do not lay in the rooms where the ſilk worms ſpin, nor where "the ſilk is ſeparated, divided, made up in ſkains, and packed "in the bales, ſo that in the whole proceſs there ſeems little "probability that the moſt ſubtle infection can be communicated "to the ſilks [3]."

It is very true that the people in the gardens and villages, do not uſually ſleep in the apartments where the ſilk worms are fed and ſpin; and from a ſuperſtitious dread of the influence of evil eyes, they do not like that ſtrangers ſhould enter there: but

[1] "Il pane, vino, zucchero, limoni, cedri, e aranci, il miele, i ſalumi, e for-"maggi, gli aromati, le robe medicinali, le cere, e le droghe d'ogni ſorta, ſi poſ-"ſono ricevere liberamente, avvertendo ſolo di levar gl'invogli, le corde, i ſacchi, "le carte, le caſſe, i vaſi, i barili, ove foſſero tali robe. Coſi le farine, il frumento, "frumentone, o ſia grano Turco, e tuttigli altri grani, e legumi, ſi poſſono libe-"ramente prendere, a riſerva ſempre de' ſacchi, e d'altri ſimili invogli, ed arneſi, "che ſi debbono laſciare indietro, o profumare, o lavar con acqua, ſecondo la loro "qualita." Muratori, lib. 1. c. x. p. 84.

Bread, wine, ſugar, lemons, citrons and oranges, honey, ſalt meat or fiſh, cheeſe, ſpices, medicines, wax, and drugs of all ſorts may be freely received, only taking care to take off the wrappers, cordage, bags, paper, cheſts, veſſels, barrels, containing the ſaid articles. In like manner flour, wheat, Turkey corn, and all other grains, and pulſe, may freely be received, but always without the bags and other like packages or coverings, which muſt be left behind, or fumigated, or waſhed with water, according to their quality. See, on this head, Gaſtaldi de avert. & proſligand. Peſt. cap. 244.

[3] Porter's Obſer. p. 446.

that

that is by no means the caſe in the after-management of the ſilk; for in winding it off, making it up in ſkains, &c. they eat and ſleep indifferently where they work. The ſilk, when brought to Aleppo, is cleaned in the merchants warehouſes, ſorted, and re-embaled.

The cleanſing of the ſilk is no laborious employment, and may be performed, as well as the winding it off and tying it in ſkains, not only by convaleſcents from the plague, but even by perſons ſlightly infected; and, in fact, I have known theſe Stracciadores (ſo the ſilk cleaners are called) conceal their ſituation, to prevent loſing their employment: concealing the plague's being in their own family, for the ſame reaſon, is a common practice. This happens only in the beginning, before the plague cauſes alarm, or towards the latter end, when, in the language of the Levant, it is ſaid to be ceaſed; for in the intermediate time the Europeans, at Aleppo, admit of no work to be carried on in their warehouſes.

Goats wool and drugs are alſo cleaned in the houſes of the merchants; and the perſons employed, being of ſtill lower rank than the Stracciadores, are in ſuſpected times conſidered as more dangerous. They uſually therefore are diſcharged on the firſt alarm, and are more cautiouſly received again, after the ceſſation of the plague. It may be remarked alſo, that theſe people have leſs intercourſe with the ſervants of the warehouſe, ſome ſeparate or remote chamber being commonly allotted for their work; whereas the ſilk is cleaned in the principal and open warehouſe. But the mean dwellings of the goats wool cleaners are very liable to infection, and they of themſelves will never make a diſcovery while there are hopes of concealing the diſtemper effectually. The Jews, who are the principal drug cleaners, have it not ſo much in their power to hide the diſtemper; an infected houſe being ſoon known in their quarter.

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Sir James Porter was certainly misinformed in the following circumstances: "That in those parts of the country where the "silk is made, namely, at and about Antioch, Tripoly and La- "tachia, on an alarm from the plague's appearance, the people "immediately fly from their habitations, and as they are gene- "rally Christians who buy that commodity from the growers, and "who are a sort of agents between the seller and the buyer, "their fears prevent them from approaching men or merchan- "dise, from whence they suspect so much as a possibility of re- "ceiving infection[4]."

It may be remarked in answer to this, that the growers of the silk, if Turks, so far from flying from their habitations, never leave them till called off by death; and if Christians, though part of the family may fly, some always remain to take care of their property, unless where they can transport the whole along with them. But no people of whatever denomination abandon their worms at work, leave the pods to be destroyed, the harvest ungathered; they have too much at stake. The same may be asserted of the agents sent into the country, who consist of Turks, as well as Christians and Jews; for however much the two latter may dread the plague, they seldom think of flying till they have finished their business; and on their return to town, should occasion require it, are equally ready to bear testimony that the places whence they came remained remarkably healthy; reserving mentally, for the benefit of commerce, that they had seen several perish in the plague.

But it is still more unaccountable how it came to be affirmed, that the plague scarce ever rages in the places where the silk, in Syria, is made. "Even granting such infection to be possible or "probable, we have still stronger reasons for security; for we "may safely affirm, that the plague scarce ever rages in those "parts of the country where the silk is made, namely, at and

[4] Observations on the Turks, p. 447.

"about

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" about Antioch, at Tripoly and Latachia - - - an accident may " indeed appear once in fifteen or twenty years[5]." From the manner in which this matter is ſtated one would naturally conclude, that only a few ſcattered inſtances of infection occurred at thoſe places, and that at very diſtant periods. Now the fact is, that Aleppo, in the ſpace of forty years, viz. between the years 1718 and 1763, had been five times viſited with the plague[6]; that Antioch, as well as the other places mentioned, always ſooner or later ſuffer in the common calamity, the villages often more ſeverely, in proportion, than the towns; and that the ſilk from Antioch, and alſo part of that from other places, is cleaned at Aleppo, from whence it is ſent, by way of Antioch, to Scanderoon. By omitting entirely all mention of Aleppo, room was left for imagining, what is very far from being the caſe, that Antioch, Latachia, and Tripoly, with the adjacent diſtricts, where the Syria ſilk is chiefly cultivated, enjoyed a peculiar exemption, or, in times of peſtilence, were little influenced by the vicinity of an infected city, with which they maintain conſtant intercourſe.

As to what is ſaid of Kirgatigh, and other parts of Aſia Minor, where the cottons grow; and of Angora, where the mohair yarn is ſpun and packed, namely, that " they are very ſeldom infected " with the plague[7]," I can ſay nothing from my own knowledge, but hope the information collected concerning them is more exact than what has been produced regarding Syria.

" All ſorts of merchandiſe (continues Sir James Porter) ſuſ- " ceptible of infection, paſs through the hands of our Engliſh " merchants or factors at Aleppo, Smyrna, or the places from " whence they are ſhipped; they are examined ſtrictly by them, " or by their ſervants. The deſire of ſelf-preſervation is as " ſtrongly implanted in the breaſt of an Engliſhman, and actuates

[5] Porter's Obſervations, p. 447.

[6] 1719. 1729. 1733. 1742, 1743, 1744. 1760, 1761, 1762.

[7] Porter's Obſervations, p. 448.

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" him as powerfully abroad as at home; he would not ſurely
" venture the loſs of his life by infection, if there were the leaſt
" grounds for ſuch an apprehenſion. He muſt doubtleſs be cer-
" tain that he runs no riſk upon ſuch occaſions. May not then
" thoſe, who receive them in England many months after, have
" the ſame certainty of their being free from danger[8]."

That the deſire of ſelf-preſervation actuates an Engliſhman as powerfully abroad as at home, will readily be admitted. But men of every nation, and in all climates, daily riſk their healths and their lives, in various ways, and from various motives. It by no means follows, becauſe a man expoſes himſelf in time of peſtilence, he therefore muſt be certain that he runs no riſk: no more can be inferred than, that he is ſatisfied with his own reaſons for incurring riſk. In the commencement of a peſtilence, the merchant who happens to have no ſhip on deſpatch, or other buſineſs to keep him abroad, will more ſpeedily, and with leſs reluctance ſubmit to preſervative reſtrictions, than he who unhappily finds himſelf eventually involved, by the temporary interruption of commerce, in certain loſs and diſappointment. Conſtant experience in Turkey demonſtrates this. Men in theſe different ſituations ſee the ſame reports through different mediums. The firſt perceives leſs cauſe for doubt, thinks ſimple probability ſufficient ground for conſulting his perſonal ſafety, and deems it unjuſtifiable raſhneſs to expoſe himſelf needleſsly. The other is more inclined to doubt the truth of the reports brought him, and to deceive himſelf with hope; he naturally inclines to the ſide moſt agreeable to his wiſhes, and, till conviction arrives in full force, commercial intereſt and the principle of ſelf-preſervation hold perpetual variance. If therefore thoſe who receive the goods in England, have no better aſſurance of their being free from danger, than thoſe have by whom the goods were ſhipped, the public health, ſo far as contagion is concerned, ſtands on a very precarious foundation.

[8] Porter's Obſervations, p. 449.

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The aſſertion of the plague's never having been introduced into England or Holland immediately from Turkey, has been taken notice of before, and the following aſſertions may perhaps be found not better ſupported.

"There is not upon record, nor has a ſingle living witneſs "ever related an inſtance of an Engliſh factor, or ſervant's, dying "of the plague, at any of the ſea-port towns, or in any other "part of Syria or Aſia Minor, and but one only in Conſtanti-"nople, in almoſt a century; though the diſeaſe very frequently "rages in that metropolis[9]." It had been remarked before, in regard to ſeamen, "that from the firſt origin of the charter, not "one of them ever died of the plague[10];" and here it would appear that no factor, or other Engliſhman, for near a century, had died of the plague, one excepted at Conſtantinople.

It would have been ſatisfactory to have known whence this information, ſo poſitive, was derived. I have known many mariners die in Turkey, but know of no regiſter in which the name of their maladies was recorded. Did no Engliſh ſhip, during a plague, or in ſuſpicious times, lying in a Turkiſh port, ever loſe any of her crew? That ſuch a thing never happened in the courſe of a century and a half, can hardly be ſuppoſed; proviſion even is made for ſuch a caſe, in the orders of the Levant Company. If it did happen, does it any where appear of what diſeaſes ſuch men died? and is it ſo eaſy a matter, in ſuſpicious times, to pronounce in all circumſtances of a mortal diſtemper, that it is not the plague? I have known inſtances of ſailors in port dying at ſuch times, under ſtrong circumſtances of ſuſpicion, though not with eruptions. Can I imagine no ſimilar inſtances were met with in ancient times? and knowing, as I do, how many die of the plague without eruptions, and how often the eruptions are concealed, can I deem it more raſh to reckon ſuch ſuſpicious caſes

[9] Porter's Obſervations, p. 450.
[10] Ibid. p. 443.

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real plague, than at once to pronounce them not peſtilential? The declaration therefore that no Engliſh ſailor in Turkey ever died of the plague, ſince the origin of the Company's charter, requires other proofs.

One Engliſh factor only is ſaid to have died at Conſtantinople, in almoſt a century. It muſt be allowed the death of a factor, in the plague, was likely to leave a ſtronger impreſſion, and be longer remembered, than that of a private ſailor; but ſtill, at leaſt at Aleppo, there are no records to have recourſe to. Funerals are uſually regiſtered by the chaplain; laſt wills, and other papers are depoſited in chancery; but from none of theſe materials can it be diſcovered of what malady the deceaſed died; a circumſtance of that kind belonging to private letters, which are memorials ſoon loſt.

Regarding the ſervants of the merchants, including the menial ſervants in the family, inſtances of their being infected are well remembered in Aleppo, though no record, perhaps, could be produced to prove it. They do not indeed die in their maſters houſes, becauſe they are tranſported elſewhere, as ſoon as the diſtemper has diſcovered itſelf[11]. For forty years preceding the year 1760, no plague had happened at Aleppo in which inſtances in point were not in the remembrance of the natives; in the courſe of 1760, ſeveral were met with; and ſurely it cannot be concluded from the ſilence of records, which never were kept for that purpoſe, that ſimilar inſtances did not happen in the earlier periods.

As the general aſſertion, in ſo far as regards Syria, has been found erroneous, I am inclined to ſuſpect the whole, as having been too haſtily hazarded upon ſlight information. At the ſame time, I do not conſider a few inſtances of European factors or

[11] See Hiſtorical Journal.

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mariners dying of the plague, in a long courſe of years, as being at all derogatory of the precautions taken in the Levant, in conformity to the Turkey Company's regulations. The beſt regulations may happen ſometimes to be eluded; that, in the ſpace of above a century and a half, they ſhould never have been eluded, would be a miracle.

It were to be wiſhed a clearer account had been given of the practice of the Dutch, as to quarantines. In one place it is ſaid, "They have admitted ſhips into their ports, either with clean "or foul bills of health, and have found themſelves, as we may, "always ſafe[12]." In another, "They have purſued the ſame "plan (with the Engliſh) and remain in full ſecurity under that "long experienced regulation, however imperfect their own may "be at home[13]." But from the account given of the Levant Company's regulations, it does not appear that the Engliſh ever deſpatched ſhips with foul patents, except perhaps where the veſſel had taken in her lading before the plague broke out, and in ſuch caſe ſhe was permitted to leave the port, bringing a certificate of her procedure; nor does it appear probable they

[12] Porter's Obſervations, p. 441.

In a Treatiſe publiſhed at London in 1721, by a Member of the College of Phyſicians, the following account is given of the practice in Holland at that time. The author, after remarking on the method of lines and trenches uſed in France, ſays, "In Holland and Flanders, they have fenced themſelves as much as poſſible "againſt the contagion. They ordered a quarantine to be performed by ſhips com-"ing from ſuſpected places. Not contented with this, they ordered that all ſuſpected "ſhips, with their cargoes, ſhould be burnt. The ſhip's crew muſt waſh and dip "in the ſea, and I ſuppoſe freſh clothes were ordered for them to put on after their "own were burnt; ſubſiſtence was left at ſome good diſtance, which the quaran-"tine men muſt fetch at certain hours." A Theorico-Practical Treatiſe of the Plague, by Philip Roſe, M. D. Lond. 1721.

[13] Porter's Obſervations, p. 444.

From the account given of the Dutch method of quarantine, deſcribed in a letter to Mr Howard, from the Engliſh merchants at Smyrna, it would appear to be imperfect indeed. Howard on Lazarettos, p. 27.

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would attempt to purify and ſhip goods while the plague continued in the place; neither could the Dutch, on the ſuppoſition of their purſuing the ſame regulations.

The ſecurity of both nations, according to Sir James Porter, depends on the length of the voyage from Turkey, and the precautions taken in that country, for "the precautions taken (at "home) by the Dutch and us, by quarantines (if the plague "were as contagious as many ſpeculative minds are apt to ima-"gine it) would rather facilitate its entry[14]. The length of the "voyage to Turkey, and good precautions taken in that coun-"try, have been, and may again be, the means of preſerving "both the Dutch and us[15]."

But Sir James himſelf has given a very good reaſon why equal dependance cannot be held on the ſame regulations, in the preſent ſituation of the Levant trade. While that trade was carried on by annual ſhips, the ſailors, according to his repreſentation, were in a regular fixed employ, practiſed in the country, and under perfect ſubjection; which certainly cannot be ſaid of the preſent race. The attention of the Conſuls, then confined to a few ſhips, was not harraſſed, as it has been ſince, by a medley of ſmaller veſſels; of adventurers unacquainted with the cuſtoms of the country, who, under the neceſſity of making the moſt advantage of a voyage, which they probably never will repeat, conſider every reſtriction or impediment to their deſpatch as an unreaſonable or tyrannical exertion of the magiſtrate. The captains of ſhips, who ought to ſuperintend the execution of regulations, are often ſtrangers, bred in other ſervice; not aware of the dangerous conſequence of infractions, they are leſs vigilant in preventing them: and, not being dependent on the Company, they are leſs under control of a Conſul, whoſe recommendation

[14] Porter's Obſervations, p. 450.

[15] Ibid. p. 451.

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or diſapprobation becomes a matter of little importance to their future proſpects of ſervice.

It was very juſtly remarked before, by Sir James, that "a humane concern for the ſafety of his fellow creatures ſuggeſted "to a perſon of approved experience and ability, this obvious "truth, that as the Levant Company was by that law (in 1754, "laying the trade open) become more diffuſed, looſe, and extended, both with regard to navigation and traders, it muſt be "difficult to obſerve ſuch ſalutary regulations as the old merchants had made for ſtopping the progreſs of that fatal diſeaſe the plague, which ſo often prevails in Turkey .... The "new form the charter was thrown into, required new precautions: hence the wiſe citizen above-mentioned, formed "a reſolution to propoſe to parliament the eſtabliſhing good, ſecure, and proper quarantines, with Lazarettos and other conveniencies ..... to receive even infected ſhips without any "danger of ſpreading the contagion[16]." But it ſeems, impediments ariſing to the immediate execution of this plan, a temporary remedy was applied, by a ſummary law, to oblige all Engliſh ſhips from Turkey to perform quarantine; either at Malta or Leghorn[17].

Now from all this it would ſeem, that unleſs matters were brought back to the ſame ſtate as before the alteration in the Company's charter in 1754, equal dependence cannot be held on the regulations, found ſo ſalutary before that period: "the

[16] Porter's Obſervations, p. 383, 384.

[17] The Act here alluded to, was that for enlarging and regulating the trade into the Levant Seas. 26 Geo. II. and includes only ſuch ſhips as brought foul bills of health. The 12th clauſe runs thus: "That no goods or merchandiſe liable to retain the infection "of the plague, and coming from the Levant without *a clean bill of health*, ſhall be "landed in any part of Great Britain, &c. &c. unleſs it ſhall appear to the ſatisfaction of his Majeſty, &c. &c. that the ſaid goods or merchandiſe have been ſufficiently opened and aired in the Lazarettos of Malta, Ancona, Venice, Meſſina, "Leghorn, Genoa, and Marſeilles, or one of them."

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Sir James is confident, in regard to the execution of the old regulations for Turkey ſtill ſubſiſting, that " we may rely on the " Conſuls who are inflexibly exact, and would not fail to give " immediate advice to the Government or Company, in caſe of " the leaſt infraction.[18]."

The regulations of the Levant Company reſpecting quarantines in Turkey, and the precautions enjoined to their eſtabliſhments in that country, in the ſhipping of goods, having been frequently mentioned, I conceive this to be a proper place for giving ſome account of them. They are preſented as they now ſtand in the Company's orders, and, I ſuppoſe, are the ſame alluded to by Sir James Porter, as ſtill ſubſiſting. They were not made all at the ſame time; but are not diſtinguiſhed by dates.

1ſt It is reſolved and ordered, That no ſhip ſhall depart from any port of Turkey or Egypt, without a bill of health, ſigned by the Lord Embaſſador, Conſul, Vice Conſul, or Factor Marine of the place from whence the ſhip ſhall be diſpatched, which bill of health ſhall expreſs the exact ſtate of the health of the place, from the beſt information that can be had.

2d. That all enumerated goods brought from Conſtantinople to Smyrna to be laden for Great Britain, in caſe there was any contagious ſickneſs at Conſtantinople, ſhall be landed at Smyrna, and kept in a ſeparate warehouſe, there to be aired, and not to be ſuffered to be laden till the expiration of twenty-one days after their having been landed: and the factor loading the ſame ſhall accompany them with a proper certificate from the Conſul, of their having been landed and kept there for the ſaid ſpace of time.

[18] Porter's Obſervations, p. 444.

This order was extended afterwards to goods brought from other places, as well as Conſtantinople, to be ſhipped at Smyrna. CHAP. III.

3d. That no ſhip bound for Great Britain, ſhall be permitted to load at Alexandria, enumerated goods, which ſhall be ſent from Cairo when the contagious ſickneſs is there, though Alexandria is free from it, until the goods ſhall be kept in a ſeparate warehouſe to be aired, and ſuch goods ſhall not be ſuffered to be laden till the expiration of twenty-one days after their being brought to Alexandria; and the factor loading the ſame ſhall accompany them with a proper certificate, from the Vice Conſul, of their having been kept there for the ſaid ſpace of time.

4th. That no clean bill of health ſhall be granted to any ſhip in loading for Great Britain, at any of the ports of Turkey or Egypt, when accidents, or even a ſingle accident of the plague has happened, until the expiration of forty days.

5th. It is nevertheleſs underſtood that ſhips may be allowed to come away from any of the ports in Turkey or Egypt, with ſuch enumerated goods as they ſhall have taken on board before the contagious ſickneſs appeared, each bringing a certificate of his particular caſe and proceeding, from the reſpective Conſul, or Vice Conſul.

6th. That if the contagious ſickneſs ſhall get on board of any ſhip, in any of the ports of Turkey or Egypt, ſuch ſhip ſhall not be permitted to come away for Great Britain, until ſhe ſhall have relanded and aired her goods on ſhore, for at leaſt the ſpace of forty days, and the captain can have a clean bill of health; and the captain ſhall bring with him a certificate of his goods having been relanded and aired.

Theſe, as I am informed, are the whole of the orders, relative to quarantine, made by the Levant Company, and though ſome

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of them are unexceptionable, the whole together form a very imperfect baſis for a practice in Turkey, regarding men and merchandiſe, which is repreſented as equal in exactneſs to the Venetian and French quarantines, and conſidered as a ſufficient ſecurity to Britain, againſt infection of the plague. They appear to me in a very different light; and I ſhall offer a few remarks, that incline me to think them, in ſeveral reſpects, very far from ſuperſeding the neceſſity of ſtrict precautions at home.

The ſecond and third orders being of a ſimilar kind, the ſame remarks are applicable to both. It would appear that goods ſuſceptible of infection, exported from Conſtantinople, or other places, where the plague exiſts, to Smyrna, to be laden for Great Britain, or from Cairo, under the like circumſtances, to Alexandria, ſhall not be ſuffered to be laden until they have performed a quarantine of twenty-one days, during which the goods are to be aired in a ſeparate warehouſe.

For the purification of ſuſpected goods by ventilation, in the moſt favourable ſituation and expoſition, the term of twenty-one days can hardly be reckoned ſufficient; but within the confined walls of a warehouſe, where the air has no acceſs but by the doors and ſmall windows, that goods from an infected place, landed perhaps after a voyage of a week, or leſs, ſhould in three weeks be ſufficiently purified to be ſafely exported to Britain, is inconſiſtent with the univerſal practice of quarantines, in countries where the conduct of them is allowedly beſt underſtood.

Beſides the ſhortneſs of the quarantine, the orders are defective in not preſcribing the mode of airing, and in not empowering the Conſul to ſee it effectually executed. The whole ſeems to be left to the factor, and all that is required of the Conſuls to certify is, that the goods were kept in a warehouſe, and aired the time ſpecified. A ſeparate warehouſe is a ſlender ſecurity, if the porters and embalors employed on the goods, are not likewiſe kept

kept apart, and reſtrained from working promiſcuouſly, as uſual, on goods brought by other veſſels. If the bales are not opened and duly expoſed, they may as well remain in the ſhip's hold, as in the warehouſe; and if the operations on the goods, are not under the inſpection of ſome perſon unintereſted in the deſpatch of the ſhip, and appointed by the Conſul, the airing is likely to be careleſsly performed, and the Conſul's certificate to dwindle into a mere form.

The fourth order contains an abſolute prohibition, in caſe even a ſingle accident of the plague has happened in the place, to the granting clean bills of health, until the expiration of forty days. I ſhall hereafter have occaſion to animadvert more fully on this article; it is ſufficient at preſent to remark, that ſo rigorous a reſtraint is invariably productive of attempts to conceal accidents in the beginning of the ſeaſon, and to keep the Conſul in the dark.

By the fifth order, a veſſel in port where the plague happens to break out, is permitted to depart with ſuch goods as ſhe ſhall have taken on board before the plague appeared, bringing a certificate of her particular caſe and proceeding, from the Conſul. This order obviouſly required ſeveral ſpecified reſtrictions, to prevent its becoming a ſource of dangerous irregularity. All future communication of the crew, with the ſhore, ſhould have been laid under certain reſtrictions. The reception of parcels of any kind, as well as bales, ſhould have been interdicted, under pain of forfeiting the permiſſion to depart. Letters ſhould not have been received without previous purgation; and, to the ſtrict obſervance of theſe regulations, it ſhould have been no objection, that the Europeans eſtabliſhed on ſhore, had hitherto begun to uſe no precautions for their own preſervation. If ſuch precautions were formerly taken in the ports of Turkey, in times of peſtilence, they would ſeem, from any thing that appears in the Company's orders, to have been diſcretionary on the part of the Conſul and Factory.

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The ſixth order ſuppoſes the infection to have got on board the laden veſſel in port, in which caſe ſhe is not to be permitted to depart for Britain, till ſhe ſhall have relanded her cargo, and aired it for at leaſt forty days, and the captain can have a clean bill of health, together with a certificate of his goods having been relanded, and aired.

Directions relative to men, might have been expected in this order, but on that head it is ſilent. It contains no directions how the perſon infected was to be diſpoſed of; what precautions were to be taken for the preſervation of the reſt of the crew; and how the ſhip was to be purified before again taking in the cargo.

It is defective alſo in regard to the merchandiſe, in not preſcribing when they were to be landed for airing; for if landed before the Conſul could grant a clean patent, that is before forty days after the ceſſation of the plague, the goods might very probably be expoſed to more danger in the courſe of the quarantine, and at the end of it be leſs pure, than if they had remained all the time under the hatches in the hold. This will appear no paradox when it is recollected, that a warehouſe was the Lazaretto, and that there is no reaſon for thinking the porters and others were reſtrained from communicating in the city, or that they were ſhut up with the merchandiſe.

I make no doubt that the prudence of the Conſuls, in former times, formed regulations occaſionally, adapted to contingencies; but ſuch in their nature were liable to variation; they carried not the authority of explicit orders of the Levant Company, and by degrees were likely to be faintly enforced, or to grow obſolete.

Enough has been ſaid to ſhow, that the eſtabliſhed regulations in Turkey are not ſuch as ought in prudence to ſuperſede precautions in Britain, in the reception of ſhips from that country.

I do not entertain the leaſt diſtruſt of the zeal and vigilance of the Conſuls in the Levant, but conceive them, as magiſtrates of health, not inveſted with adequate powers; and know that they have certain difficulties to contend with, which are little underſtood in England, and which perhaps were fewer before the diſuſe of annual ſhips. On this head, I can ſpeak with certainty of Aleppo only: in other places there may be local variations. CHAP. III.

Sir James Porter deems it an error to be more apprehenſive of contagion from goods, than from men; "that when we are certain of the health of the crew of a ſhip, we may make ourſelves eaſy with regard to any fears which may ariſe from the merchandiſe[19]; and that the length of the voyage is a ſecurity againſt the importation of infection, by perſons."

The reaſons aſſigned for the not being apprehenſive of merchandiſe, have already been diſcuſſed; it remains only to examine what has been ſaid of contagion from perſons. "The longer men have been confined together in the ſtagnated air of a ſhip's cabin, the more ſuſceptible will they be of receiving an infection, by ſo cloſe a communication with each other. A voyage from Turkey to England is ſeldom performed in leſs than two months; ſometimes it takes a much longer time: contagion in a ſhip muſt therefore deſtroy two-thirds, or, at leaſt, one-half of the crew[20]."

That contagious diſeaſes, on board of crowded ſhips, make dreadful havock, has too often been experienced in our ſhips of war. The caſe of merchant ſhips is different, their crew conſiſts of a ſmall number, and the navigation of the veſſel requires the men to be much on deck. The complement of men, of one of the laſt annual Turkey ſhips, (of near 500 tons burthen) conſiſted of forty-five, officers included. The notion of ſtagnated

[19] Porter's Obſervations, p. 445.
[20] Ibid. p. 444.

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air of a ſhip's cabin, proceeds from want of experience in ſea matters. There is, in fact, nothing peculiar in the ſea life that can be ſuppoſed to prediſpoſe the body to, or render it more ſuſceptible of contagion[21]. The men in a Turkey voyage have wholeſome diet, good air, and are kept in proper exerciſe. Indeed, ſhould the plague, in the courſe of the voyage, happen to ſeize any of the ſailors, much is to be apprehended from the cloſeneſs between decks, where the common men ſleep; but the riſk incurred by the others, ariſes not from their being prediſpoſed to infection by their diet or confinement; it conſiſts in their lodging too near the infected body. But even in caſe of the plague appearing on board, it does not follow that two-thirds, or at leaſt one-half of the crew muſt neceſſarily periſh. The diſtemper will not ſpread at ſea, more than on ſhore, without a concurrent diſpoſition in the air; and, by early precautions in the beginning, its progreſs may perhaps be ſtopped more effectually on ſhip board than on ſhore. In Chataud's veſſel, which brought the plague to Marſeilles in 1720, ſix perſons only died on the paſſage; in the Tartan, which brought it to Meſſina in 1743, one or two only of the ſailors died in the paſſage from the Morea.

But the healthineſs of the ſhip's company is no indication of the ſtate of her cargo, with which moſt probably they may have had no communication the whole of the voyage. When the complete crew and paſſengers arrive in good health, there is certainly very little to be apprehended from their perſons, or even from the apparel which had been in daily uſe on the voyage, as they may be ſuppoſed ſufficiently purified by ventilation. But the caſe is different with clothes, and other things, which have remained in cloſe packages from the time they were ſhipped; and which, being in the ſame predicament with the cargo, ſhould be ſubject to a ſhorter or longer quarantine, according to circumſtances.

[21] In the Rational Enquiry into the Plague, by a Dr. Pringle, a ſuppoſition of this kind is aſſumed, "If the perſons on board, who by their diet and cloſe confine-"ment are more ſuſceptible of infection, come into port in good health," &c. p. 9.

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I have now conſidered fully the whole of what has been offered on the ſubject of contagion by Sir James Porter, except what is ſaid of the preſent mode of performing quarantine in England, and that will come in with more propriety hereafter. It would have been more agreeable to me, to have communicated my remarks privately to himſelf, than to produce them in their preſent form; but I did not arrive in England till after the publication of Sir James's book. I however judged it proper to rectify ſome miſtakes reſpecting Syria; and not to paſs unnoticed ſome opinions which, ſo far as they encourage a reliance on inadequate means of preſervation, ſeemed to me of dangerous tendency. At the ſame time I conſidered it as implying no reflection on Sir James's memory, that a perſon in his ſtation, ſhould have fallen into ſome errors, through miſinformation, in matters out of his own line.

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Facts ſtated, relative to the progreſs of the plague at Aleppo, 1761—The natives conſtantly attempt to conceal the diſtemper from the Europeans—Hence requiſite information, as it reſpects bills of health, is obtained with difficulty.

WHAT I am about to offer on this head being chiefly the reſult of experience and obſervation in Turkey, I conceive it proper to bring together in one view, ſome facts relative to the commencement and termination of the plague at Aleppo of 1760, which have been before mentioned diſperſedly in the Hiſtorical Journal[1]. It is partly upon theſe facts that the regulations to be propoſed are grounded.

[1] Book 1. chap. v.

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The plague made its appearance in ſeveral of the maritime towns of Paleſtine and Syria, towards the end of the year 1759. Early in the ſpring of 1760 it reached Damaſcus, where it raged all the ſummer. About the middle of May it reached Aleppo, making its firſt appearance in two or three Armenians, who were employed as porters of one of the public khanes, and were ſuppoſed to have caught the infection of a Turk merchant from Damaſcus, whoſe ſores were yet open, and who, in company with two or three other travellers, had lodged ſome days in the khane on his way to the north.

The three Armenians died, in the courſe of ſix or ſeven days, one after the other. But though this happened within a hundred yards of the Engliſh conſular-houſe, the Europeans, in all probability, would have heard nothing of the matter, had not the death of the firſt, and the ſuſpicious condition of the other two, come accidentally to my knowledge, and induced me to ſift the report by viſiting the ſick[2].

Conſidering the ſtate of ſome of the ſea-port towns, and of Damaſcus, where the plague had already made conſiderable progreſs, together with the interval unuſually long that Aleppo had remained free from the plague, there was little reaſon to expect it would eſcape a viſit in the ſummer. But there being no ſhips on departure, or at Scanderoon, the early diſcovery of the plague in the city was of no further conſequence to the Engliſh factory, than to put them on their guard, againſt the uſual practice, of the natives, of concealing the plague; and to ſuggeſt a caution againſt extending mercantile engagements, which the increaſe of the diſtemper would eventually interrupt. In reſpect to meaſures for their perſonal ſafety, they are ſeldom thought of till the plague has made ſome conſiderable progreſs, or is known to have approached the European quarter of the town.

[2] See Caſe I. and II. Appendix, and Hiſtorical Journal.

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Under theſe circumſtances, I judged it beſt to give private information to the Conſul, leaving it to him to communicate it to the gentlemen of the ſettlement; and, being aware of the popular odium incurred by the author of a firſt alarm of ſo diſagreeable a kind, I determined to preſerve ſilence on the ſubject, in the ordinary courſe of my viſits among the natives [3].

To the death of the third porter, on the 23d of May, an interval of eight days ſucceeded, in which no new accidents were heard of; and what had happened to the porters was aſcribed to another cauſe. This pauſe gave probability to the imputation of my having miſtaken the diſeaſe, and ſubjected me to cenſure from the public for indiſcretion. But had there been a caravan then on departure, my ſituation would have been much more diſagreeable; the Conſul would have refuſed granting a clean patent, and I ſhould have been accuſed of doing an injury to the merchants, by officiouſly interpoſing unaſked.

The calm however in the end of May was deceitful, ſeveral accidents happening at that time, which were not known to the Europeans. By the 4th of June, my account of infected perſons in the city, amounted to ſixteen; but ſome of thoſe were convaleſcents lately come from Damaſcus, or other places.

[3] Having preſerved copies of my letters to the Conſul, relative to the commencement and termination of the plague, I ſhall ſubjoin extracts of them to ſhow on what ground patents were refuſed or granted at that time.

Aleppo, May 22, 1760.

To William Kinloch, Eſq.

SIR,

I AM ſorry to inform you, that my ſuſpicions concerning the plague, with which I acquainted you this afternoon, have proved true. The people are actually infected; a bubo I diſcovered in one of them this evening, together with other circumſtances in their caſes, leave no longer room to doubt the nature of their diſeaſe. With reſpect to the gentlemen of our factory, you will pleaſe to make uſe of this intelligence in the manner you ſhall judge proper, my having communicated it in this manner to you will excuſe my ſilence on the ſubject to-morrow, when I propoſe making my viſits as uſual in the city.

I remain, &c.

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The progreſs of the diſtemper, till the middle of June, was very ſlow, and ſo many of thoſe immediately employed about the ſick eſcaped infection, that people continued to deceive themſelves with hopes of its not being the plague; which they thought muſt have ſpread more rapidly, and infallibly have attacked the nurſes of the ſick: an unfortunate prejudice, the ſource of infinite miſchief in all countries. The increaſe of the diſtemper through the latter fortnight of June, rendered the Europeans more cautious in walking about in the city, but they did not judge it neceſſary to ſhut up, till the beginning of July. The plague diſappeared in Auguſt: and I find by my papers that applications for bills of health were made to the Conſul the beginning of October [4].

During the winter of 1760, I neither met with, nor heard of any peſtilential accidents; but it was generally apprehended the diſtemper would return next year. In this interval, the merchants were buſy in providing a cargo for a ſhip which they purpoſed to diſpatch early in the ſpring; but flattering themſelves all was over, or if the diſtemper ſhould return, that it would be late in the ſeaſon, the departure of the caravan for Scanderoon was procraſtinated from day to day, till the 31ſt of March.

From an apprehenſion of what afterwards happened, I had requeſted the Conſul to endeavour, by his Druggomen, or others,

Aleppo, Oct. 6, 1760.

[4] To William Kinloch, Eſq.

SIR,

IN obedience to your requeſt this day, I have examined my journal of the late plague, and find the laſt inſtance of infection which fell under my own obſervation happened the 15th of Auguſt; and from the beſt information I was able to procure, that no perſon has been infected later than the 19th or 20th of that month. As I did not decline viſiting the infected, and have continued the ſame methods of procuring intelligence which I had employed from the beginning, I think there is reaſon to believe that the plague ceaſed in this city about the 20th of Auguſt. I remain, &c.

to

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to procure intelligence for his regulation in granting patents; as I did not wiſh to expoſe myſelf to the obloquy I had incurred the preceding year, more eſpecially under circumſtances which rendered the chance of incurring it much greater. But he fairly declared that, from what he had ſeen already, he found no reliance, in ſuch matters, was to be placed in the Druggomen; that he was determined not to grant patents, without previous application to me, and if he found me declining or heſitating to give an opinion, he would cut the matter ſhort at once, by putting a ſtop to clean patents till Midſummer.

Through the autumn and winter, I had conſtantly employed the means before-mentioned in the Journal for procuring intelligence; and had myſelf continued to viſit the natives, in moſt quarters of the town and ſuburbs. I had therefore good reaſon, in March, to think them ſtill free from the plague; and on that ground returned anſwers to the enquiries frequently made by the gentlemen of the ſettlement, concerning the health of the city.

In the evening of the 29th of March, one of the perſons employed to collect intelligence, came to acquaint me, that he had for ſome days paſt heard reports of the plague, but deferred bringing them till he ſhould be able to come at ſome certainty. That he had been, that afternoon, at a houſe near the Horſe-market, where he found a man lying extremely ill, with a bubo in his groin; that ſeveral others lay ſick in an adjacent Keiſaria[5], from whence a number, that to him appeared incredible, were ſaid to have been buried within the laſt fortnight. This information, of the truth of which I had very little doubt, did not much ſurprize me. I had all along looked upon the return of the plague as certain, but the ſudden declaration of it at ſo critical a conjuncture, the caravan for Scanderoon being to ſet out early next morning, I knew would be ſubject to many comments.

[5] By Keiſaria is here meant a number of mean houſes, built round a large enclofed area.

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The affair, as it then ſtood, was of a nature not to be concealed from the Conſul; the bare ſuſpicion was ſufficient to vitiate the patent. The only chance of preventing a ſcene of confuſion was, that of finding the diſtemper, of which the people then lay ill, not to be the plague; but as ſuch a point could not ſo effectually be ſettled as by viſiting the ſick myſelf, I determined to go privately to the place, by ſun-riſe next morning. The reſult of this viſit will appear from the caſes marked below[6]; and from a letter written to the Conſul, immediately on my return home[7].

I requeſted the Conſul, for obvious reaſons, not to give me up as the author of his intelligence, for at leaſt ſome days. But in the aſſembly of the merchants, which was ſummoned the ſame afternoon, and in which he declared his not being at liberty to grant clean patents, ſo many inſinuations were thrown out of the poſſibility of being impoſed upon in his information; of the hardſhip of ſtopping the deſpatch of the ſhip upon envious or intereſted ſurmiſes, which the Conſul's ſhort reſidence in the country had not yet led him to be aware of; ſo much ſtreſs was laid on my having declared to every body, two days before, that I had heard nothing of the plague; and he was ſo ſtrongly urged to ſend for me, before coming to a reſolution ſo detrimental to their affairs; that, after reſiſting ſome time, he was at length

[6] Caſe VIII. and IX. Appendix.

[7] To William Kinloch, Eſq.

Aleppo, March 31, 1761.

SIR,

I AM ſorry to inform you that, within theſe laſt eight days, ſeveral perſons within the walls of this city have died of the plague. My intelligence of this fact is accompanied with all the circumſtances of certainty that matters of ſuch a kind can well admit of; and in the ſame place where thoſe perſons are ſaid to have died, there are now, to my certain knowledge, ſeveral others lying ſick of the plague, with ſymptoms ſo unequivocal, that there remains no doubt of the reality of the diſeaſe. I am, &c.

forced

forced to depart from his promiſe, and to tell them it was wholly unneceſſary I ſhould confirm in their preſence, what I had already given to him under my own hand.

In the firſt moments of diſappointment, I was blamed for not giving information to the merchants, before the Conſul; and ſome conceived I had been officiouſly buſy, in ſaying any thing at all to the Conſul, before being aſked. It was not then known that I myſelf had not been ten hours in poſſeſſion of the information, before I took the moſt effectual meaſures for preventing impoſition; and, when the fact was aſcertained, of communicating it to all. Nor was it recollected that concealment for a few days, of what muſt have inevitably been known when a patent was required, might have involved their affairs in ſtill worſe embarraſſment; eſpecially if any part of the goods had been put on board of the ſhip, which had taken in part of her cargo at other ports.

The gentlemen of the ſettlement, on retiring from the aſſembly, had been enjoined not to mention my name; but it was impoſſible to conceal the refuſal of clean patents; and the conſternation in the city became general, among thoſe connected with the Europeans. The warehouſemen and other ſervants, not knowing whence the information came, were poſitive the Conſul had been impoſed upon; affirming it (plauſibly enough) to be impoſſible the plague ſhould exiſt in the place, without one or other of them hearing of it. They perſiſted in this for ſeveral days; and pretended that all the native doctors concurred in there being no plague.

Notwithſtanding my precautions, my viſit at the Keiſaria had not paſſed unnoticed. It happened that I was obſerved going to the place, by the ſlave of an eminent Turk merchant, who, thinking the hour unuſually early, mentioned the having ſeen me to his maſter. Two or three days after, the merchant being

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at the Mohaſſil's[8], who was at that time temporary governor of the city, the plague was mentioned in the courſe of converſation; and ſurprize being expreſſed at the unexpected ſtep taken by the Engliſh Conſul, the merchant communicated the information of his ſlave to the Mohaſſil, adding, that ſomething probably might be learnt from me, if queſtioned privately; for though I pretended to know nothing of the matter, it was ſuſpected the Conſul muſt have had his intelligence from me. The Mohaſſil accordingly ſent for me, and, after premiſing the conſequence it was to him, in regard to the public revenue, to know the likelihood there was of a plague that year, deſired to know, if I could inform him, the Conſul's motive for refuſing bills of health. In anſwer to this, I explained the neceſſity the Conſul was under of acting as he did, and confeſſed I myſelf had given the information. I told him, at the ſame time, my reaſon for declining the ſubject in common converſation was to avoid a repetition of the clamour he knew had been raiſed againſt me the year before. He returned me thanks; and I had cauſe in the ſequel not to repent the confidence placed in him[9].

The popular notion of there being no plague, prevailed during the firſt ten days of April; the Europeans being ſtill aſſured by their ſervants, that they had taken particular pains in making enquiry, without being able to trace any thing of the diſtemper. At length they were brought to acknowledge, that in the month of March, ſeveral perſons had died in a certain Keiſaria; people not of Aleppo, but ſtrangers from other places; that the mortality had ceaſed, and nothing more remained of the diſtemper. This being confidently aſſerted as the reſult of ſuch enquiry, was

[8] Farmer of the Revenue.

[9] One of the people employed by me to procure intelligence, and ſuſpected of being too active in the exerciſe of his duty, was, under ſome other pretence, thrown into priſon; but immediately liberated on my application, and the example proved afterwards a protection for all the others whom I retained in my ſervice.

believed by many; and incredulity, in reſpect to the plague, prevailed pretty generally till the beginning of May. CHAP. IV.

In the mean while, theſe pretended enquiries were either negligently conducted, wholly fictitious, or thoſe in whom ſome of the Europeans placed confidence were guilty of moſt unjuſtifiable deceit. For, in the firſt place, prior to the information given to the Conſul, above forty perſons had been buried from the Keiſaria, and a number, ſomewhat leſs, from an Arab camp near one of the city gates[10]: in the ſecond place, the people of the Keiſaria were not ſtrangers arrived lately, but inhabitants, and moſt of them natives of Aleppo; and laſtly, ſo far from the diſtemper having ceaſed, it ſtill ſubſiſted in the places where it had firſt appeared, and there were daily peſtilential funerals, all the month of April.

From what has been now ſaid, as well as from the Hiſtorical Journal, it appears what little credit is due to the reports of the intereſted part of the natives, in the beginning of a plague. But it may juſtly be thought ſtrange how facts, ſuch as have been ſtated, could paſs unnoticed by thoſe in the vicinity of infected houſes; and why perſons, not connected with commerce, and who had nothing to loſe by the communication, ſhould be reſerved, when matters of that kind came to their knowledge. In anſwer to the firſt, it may be remarked, that the unuſual mortality, in the laſt ten days of March, did not eſcape the notice of the people in the neighbourhood of the Keiſaria, nor did they affect to conceal it; and information in other parts might have been obtained by any one, by going, as I did, to the ſpot. Neither was what paſſed in other parts of the town unknown, eſpecially to the women, nor were they ſhy in talking of it. But the perſons dependent on trade and manufacture, who compoſe a numerous claſs of the inhabitants, and are diſperſed in moſt quarters of the city, check the ſpreading reports of the plague; and

[10] Hiſtorical Journal.

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the Chriſtians and Jews, who have acceſs to the Europeans, are in this reſpect very aſſiduous.

In regard to ſuch of the Turks who have no concern in trade, they have no intereſted motive for concealing what they hear; but politely abſtain from propagating reports which they know to be unpleaſing, and which may happen to prejudice others in their affairs. The conduct of the Chriſtians of the upper claſs is more readily accounted for; moſt of them, or their relations, are engaged in commerce, and a confirmation of the plague's exiſtence affects, more or leſs, the whole nation. The year 1761 affords a ſtrong example of their conduct at ſuch times. At the cuſtomary ceremonial viſits on the Feaſt of Eaſter, nothing was heard but congratulations on the extinction of the plague; an event, however, which was by few believed, and by many known to be not true. The maſter of the houſe knew very well he might ſafely aſk his gueſts, aſſembled from different quarters of the town, what news they had of the plague. Every one was prepared to thank God he had heard of no new accidents, for many days. Thus, in proportion to the number of his viſitors, he was enabled to produce evidence for a fact, which he himſelf knew was falſe. If the plague were really in the city, how was it poſſible ſo many as had been to viſit him, ſhould know nothing of the matter? A declaration of this kind procured him a more welcome reception where he returned the viſits, and thoſe who heard him, were authorized in their reſpective circles to diſſeminate equivocal untruth with a ſafe conſcience.

In the mean while it is of obvious importance that the Conſul, who has the ſole power of granting bills of health, ſhould have the earlieſt and beſt intelligence of the appearance of the plague in the city, or in its vicinity: but how is this intelligence to be obtained, in a country where he can expect no aſſiſtance from the police; and where there is a perpetual combination to conceal matters

matters from his knowledge as long as poſſible[11]. The only perſons he can apply to are his druggomen or interpreters, and there are ſeveral reaſons for their not wiſhing to interfere. It is an invidious office to communicate vague reports, which may diſturb the public tranquillity, and it is out of their line to aſcertain ſuch facts as they may accidentally hear of. Yet ſuch are the only reports to be expected in the beginning of the ſeaſon, when the characteriſtic marks of the plague are very often abſent, or concealed. The interpreters, well knowing that a communication, under ſuch circumſtances, would be execrated, as highly officious, naturally ſtand aloof, and rather avoid than encourage information. CHAP. IV.

When accidents multiply, or chance brings them to be talked of in a way that muſt reach the Conſul, how is he to know that ſuch are really the plague? reports for the moſt part being contradictory. There is no medical perſon officially obliged to viſit the ſick; and, if a native practitioner of phyſic were to be employed, his report on ſeveral accounts would be ſuſpicious; if favourable, it would be alleged he was afraid of popular reſentment; if otherwiſe, that he was corrupt or ignorant.

In the end of the ſeaſon, the Conſul finds himſelf under equal, if not more embarraſſment, it being more difficult to affirm, of a

[11] From the repreſentation of the Smyrna merchants, in their letter to the late Mr. Howard, it would appear that the Conſul of Smyrna is leſs liable to have matters concealed from him, than to be miſled by fictitious reports of a plague, when none actually exiſts. It would ſeem that the Conſul there is determined, in granting clean or foul patents, by the reports he receives from the Greeks, to whom he is under the neceſſity of applying for information; becauſe nothing on the ſubject, to be depended upon, can be procured from the Turks. But as many of the Greek merchants trade directly to Leghorn, and other ports, in the ſame commodities which are exported to England, it often becomes their intereſt to raiſe falſe alarms of the plague, in order to impede the diſpatch of the Engliſh ſhips; which, being under the neceſſity of waiting forty days for clean patents, the foreign ſhips gain the important advantage of bringing their cargoes to the European markets much ſooner. At Aleppo, few or none of the native merchants carrying on any commerce directly to Europe, there is no temptation to ſuch practices.

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large town, that the diſtemper has ceaſed, than it was in the beginning to pronounce ſuch and ſuch particular accidents to be the plague. The uſual practice is, that the Conſul marks down the laſt inſtance which comes to his knowledge, and, at the expiration of forty days from that date, conſiders himſelf at liberty to grant bills of health, which are reckoned clean. But if his information be merely fortuitous, or derived from no one who is reſponſible for negligence in enquiry, ſuch patents reſt on a very precarious foundation.

It will appear from what has been ſaid, that the Conſul, as magiſtrate of health, is not provided with adequate means of obtaining neceſſary information; and that he is obliged to act under ſeveral diſadvantages. That he is liable to be miſled, on one hand, to the prejudice of commerce, by fictitious rumours; and, on the other, to endanger the health of his mother country, by a declaration, reſpecting the health of the place of his reſidence, founded on intelligence in which he has been equally, but in its conſequence more materially, deceived.

CHAP. V.

Hardſhips to commerce reſulting from the preſent regulations in Turkey—Little ſecurity to Britain derived from them—Regard ought always to be had to the convenience of merchants, in framing orders for quarantine—Bills of health, on their preſent footing, defective and inſecure—Trade ceaſes during the rage of the plague, but is reſumed too early in its decline.

BY an order of the Levant Company, no ſhip ſhall depart from any port of Turkey or Egypt, without a bill of health; and, by a ſubſequent order, no clean bill of health ſhall be granted to

to any ſhip in loading for Great Britain, at any of the ſaid ports, when accidents, or even a ſingle accident, of the plague has happened, until the expiration of forty days.

Had a Caravan, in the year 1760, happened to be ready to ſet out from Aleppo in May, a few days before the plague broke out on the 22d of that month, the ſhip could no more have obtained a clean patent than in the following year; yet circumſtances were widely different. In the former year the city, and its environs, had remained many years free from all ſuſpicion of plague; the ſilk and other merchandiſe had been purchaſed and packed up, before any ſuſpicion aroſe. In the latter, at leaſt part of the cargo muſt have been provided, though perhaps not cleaned or packed, not only in ſuſpicious times, but even when the plague actually exiſted. If it was a hard caſe in the ſecond year to reſtrain the merchant's property from exportation, it ſurely would have been much harder in the firſt.

Again, the goods ſuppoſed to be reſtrained in the ſpring of 1760, and which had remained in warehouſe all the ſummer and autumn, became entitled to be exported in the winter, forty days after the ceſſation of the plague: and, what is more, I know of no cuſtom or regulation that prevented the merchants, after their coming out from confinement, the latter end of July, from providing or completing a cargo, which they might legally have deſpatched the beginning of October.

The year 1761, affords an example ſtill ſtronger. The plague ſpread more conſiderably than in the preceding year, the Europeans were longer ſhut up, and the ſilk, as well as other commodities, muſt have been provided during the time of the plague. But had the contagion ceaſed, as was expected, in Auguſt, there could have been no legal objection to bills of health in October: as it happened, the plague did not ceaſe in the autumn.

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On the termination of the plague in 1762, the goods to be exported, consisted of such as had been ready for exportation in the month of March, 1761, and of such as must certainly have been provided either during the plague, or in the short interval between the middle of September and beginning of November. The requisition of clean patents, in November, must have been complied with by the Consul, notwithstanding part of the goods were what had been prevented from being exported in 1761, and part had been provided when the silk countries, as well as Aleppo, were actually, or very recently had been, visited in a much higher degree by the plague than in the former years.

It may be thought that the regulations alluded to by Sir James Porter had made ample provision for all this; that the goods prevented from being exported in 1761, must have been opened and aired, before their being shipped in 1762; that the merchants were either prohibited from making purchases, in the circumstances described, or, for their own sakes, would abstain from so doing. But we have already seen that the orders of the Levant Company reach not the cases now supposed; and I shall only remark further, that whatever may be the practice in other parts of the Levant, or whatever may in former times have been the practice in Syria; the goods in question were neither opened nor otherwise purified; the merchants did not consider themselves restricted from making purchases, when or where they judged fit; nor did the Consul consider himself invested with any power to interfere in such matters. As to the merchants abstaining from commerce for the sake of their own preservation, I do not believe any of them in the height of the plague ventured communication, or to receive goods[1]; but before shutting up, and after

[1] Though the English are not, other nations are suspected of risking a dangerous commerce at such times, with what justice I cannot pretend to know. "Il faut "scavoir que les marchands de Marseille ont des correspondans dans chaque echelle "du Levant, qui ont soin de prendre leur mesures à propos pour faire les achats au "meilleur

after coming out from confinement, though in both cafes the plague, in fome degree ftill fubfifts, the danger of communication is variouſly eſtimated, and the merchants abſtaining from, or immediately engaging in commercial intercourſe, depends upon circumſtances very different from conſiderations of perſonal danger. It is true, the ſilk from infected places, or purchaſed in ſuſpicious times, muſt be cleaned and repacked at Aleppo, and if any accident ſhould happen among the perſons employed in thoſe operations, it would prove a new impediment to bills of health: but it is a very raſh inference, that nothing is to be apprehended from merchandiſe tranſported at ſuch times to other countries, when the workmen employed on them in Turkey happen to eſcape unhurt.

In framing regulations for quarantine, it ought to be a leading principle, as far as may be conſiſtent with the public ſafety, to avoid multiplying the reſtraints and embarraſſments of commerce. In times of ſuſpicion and of peſtilence, the merchants are unavoidably ſubject to many delays, vexations, and loſſes; it were cruel, as well as impolitic, to ſuperadd reſtrictions, either unneceſſary, or inadequate to the intended purpoſe. A regulation that renders every patent inadmiſſible in England, except what declares the place where the ſhip was loaded to have been free from the plague, or ſuſpicion of the plague, for the ſpace, at leaſt, of forty days, I am inclined to think will be found, in both reſpects, of this kind. Two or three accidents in the beginning of the ſeaſon, taints a bill of health equally as five hundred would

" meilleur marché qu'ils peuvent. Le temps de la contagion eſt très propre pour " faire ce qu'ils appellent de bons coups, parceque le commerce des etrangers ceſſant " dans ces ſortes des occaſions, ce deffaut fait baiſſer les marchandiſes, & ils en " profitent pour faire des Amas. Quand ce temps eſt paſſé, les Vaiſſeaux vont faire " leur chargement, & comme la contagion paroît avoir ceſſé, *ils partent avec une " patente nette, & des ballots empeſtés.* Or, comme l'on n'uſe pas dans les infirmeries " de la méme rigidité à l'égard de ceux qui arrivent avec patente nette, qu'on prat- " tiqueroit envers ceux qui l'auroient brute, il eſt aiſe' de juger des conſéquences que " cet abus peut avoir." Traité de la Peſte, part ii. p. 184, 205.

do;.

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do; and a patent declaring the place free for forty days, though the plague had raged there for ſeveral months immediately preceding the quarantine, is reckoned as clean as if the place had remained uninterruptedly free for ſeveral years.

There would ſeem to be two principal defects in the conſtruction of bills of health[2]. The one in requiring the Conſul to declare abſolutely that the plague is, or is not, in the place; the

[2] I ſhall here ſubjoin an abſtract of a bill of health from Cyprus, dated in the year 1735, when the Levant Company was on the ancient eſtabliſhment. I have none within my reach from other places, or of a later date; the Quarantine Act, in 1753, made no alteration in the form.

" We Stiles Lupart, Eſq. Conſul, &c. Do give full and undoubted teſtimony " and atteſt to all Honourable and Excellont Lords, Commanders, and other Offi- " cers by ſea, to whom theſe our preſent letters ſhall come, that there departed from " this town and port of Salines, the Britiſh ſhip called Delawar, commanded by " William Cleland, for the voyage of London, with his mariners to the number " of forty-five, including the captain and officers, who are Britons, and the ſhip " belonging to Britiſh owners; and we further atteſt to all Honourable Magiſtrates " or other Officers upon the Office of Health, in Chriſtian parts, that, by the grace " of God, in this iſland and kingdom of Cyprus, there is, and for more than three " years paſt has been, perfect health, and the inhabitants free from all ſuſpicion of " plague or other contagious diſtemper, which is made known. In witneſs whereof " we have ſet our hand, and cauſed the accuſtomary ſeal of our Cancellaria to be " affixed hereunto. Given at our Reſidence in Larnica of Cyprus, the 26th Day " of February, &c. &c.

A ſeparate Bill of Health, for a paſſenger on the ſame ſhip, runs nearly in the ſame ſtile, in Italian. " Atteſtiamo - - - qualmente Il latore di queſta é H Signor " P - - H - - gentilhomo Ingleſe ſi imbarcha ſopra La Nave - Delawar - - - per il " viaggio deſtinato, a Iddio piacendo, per Londra. Atteſtiamo anche - - - qualmente " in queſta Iſola ſi vive, per la Iddio gratia, con ottima ſalute, & ſenza ſoſpetto " alcun di mal contagioſo che ſi ſia per piu da tre Anni paſſati, Il che vi ſia " noto, &c. &c.

It may be remarked here, that the Engliſh patent declares the place to be free, not only from the plague, but from all contagious diſorders whatever, which is much more than was neceſſary; for ſmall-pox, meaſles, or even petechial fevers, common on the coaſt, were never reckoned impediments to a Bill of Health.

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other in excluding a detail of circumſtances, indicating ſuſpicions of more or leſs weight, where certainty, which inevitably muſt be ſometimes the caſe, cannot be obtained.

In reſpect to the firſt, where the city and adjacent territory have remained free for a year or two, a Conſul may, without heſitation, grant a clean patent in the uſual form; but after a plague has been raging in the town for many weeks, it ſeems rather unreaſonable, in a matter ſo difficult to be aſcertained in a populous town, to exact an inconditionate declaration, as indiſpenſable to conſtitute a clean patent; and to lay him under the neceſſity of deeming all ſuſpicious circumſtances indiſcriminately ſufficient to conſtitute a foul one. The public health is endangered by the firſt, the property of the merchant very unneceſſarily tied up by the ſecond.

The other defect in the bills of health might be remedied by the admiſſion of middle patents, between the clean and foul, reciting ſuſpicious circumſtances, or the reputed ſtate of adjacent towns, which it may happen not to be in the power of the Conſul to aſcertain. Theſe, by foreign nations, are admitted under the title of Touched Patents, *Patentes Touchées*; and tend greatly to facilitate the adminiſtration of a Conſul, as a magiſtrate of health.

The foul patents I need ſay nothing of, as they ought to continue to be inadmiſſible in England, till ſuch time as a regular Lazaretto ſhall be eſtabliſhed, for the reception of ſhips that bring them; but the middle kind, which at preſent are equally inadmiſſible, might be ſafely received in England, under ſome little improvement of the precautions uſually practiſed there. A ſhip departing from Aleppo the end of May, 1760, might, on that ſuppoſition, have brought a touched patent, and, for reaſons to be aſſigned hereafter, I think a ſhip deſpatched early in the ſpring of 1761, before the reappearance of the plague, ſhould have been conſidered as ſtanding in the ſame predicament, though

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though intitled to, and actually would have brought, a clean patent.

The admiſſion of ſhips with middle or touched patents, at preſent wholly prohibited, would not only in ſome degree be a relief to commerce, but I am perſuaded would conduce more to the public ſafety than the preſent reſtriction. As this may appear a paradox, I ſhall endeavour to explain it.

He muſt entertain an ill opinion of mankind who can believe any merchant, in the Levant, from lucrative motives, would riſk the health of his country, by exporting merchandiſe when the plague was raging in the place; or under the conviction of his own mind, that his commerce, highly advantageous as it might be to himſelf, might in the event involve thouſands of his fellow creatures in miſery. But very different opinions of the probability of ſuch conſequences prevail in England and in the Levant, eſpecially in the beginning and decline of a plague. What would excite dreadful apprehenſions univerſally in London, cauſes very little alarm in countries more accuſtomed to be viſited by the plague. Perſons in the Levant, as I have repeatedly had occaſion to remark before, ſeldom have recourſe to meaſures for their own protection till the diſtemper has conſiderably advanced; and trade, which is often little interrupted before the ſhutting up, is frequently reſumed almoſt as ſoon as the warehouſe doors are thrown open. There, no doubt, are exceptions to this, to be found in the more wary conduct of ſome individuals; but the practice is far leſs uncommon than perſons, deliberately ſpeculating in Britain, would eaſily be perſuaded to think probable.

The notion prevalent in Turkey, that little is to be apprehended from contagion early in the ſpring, or in the decline of the plague in the autumn, contributes to maintain the practice of concealing peſtilential accidents as long as practicable. The

leſs that is ſaid about them, think the natives, the leſs chance there is of their coming to the ear of the Conſul; and if things can be huſhed up till after the deſpatch of the ſhip in port, they conceive no harm can ariſe from the concealment. I am far from inſinuating that the merchants directly connive at intrigues of this kind; on the contrary, I have often known them deceived by their ſervants. But it is very natural for them to wiſh the arrangements they have made ſhould not be interrupted, and to be remiſs in ſearching for what they dread to find. Unpleaſing reports, tranſient, and often contradictory, are apt to be diſbelieved, or only leave ſlight impreſſions; and, in deliberating on conſequences, where the problematical riſk of the plague being exported is put in one ſcale, and the certain loſs, from a long detention of property, is put in the other, the merchant immediately intereſted in the deciſion ought to have ſteady nerves, who would truſt himſelf to hold the balance.

In the mean while the practice of concealing peſtilential accidents, with a view to prevent the interruption of trade, or the deſpatch of ſhips to Europe, often proves detrimental to the merchants themſelves, and ſeldom proves thoroughly ſucceſsful. It proves detrimental, by leading the merchant, deceived by fallacious hope, to enlarge his inveſtments, and to procraſtinate the departure of his ſhip, which, if he had had good intelligence, might have been ſafely deſpatched with the goods long before ready, and a large part of the cargo have got home, inſtead of the whole being tied up for many months, for the ſake of a few lingering bales. This was obviouſly the caſe in 1761; for a caravan might have been deſpatched in February, had not ſome circumſtances, relative to other places not far diſtant, been ſuppreſſed, and ſome intelligence which was received, been too much diſregarded.

The ſtratagem alſo, from the nature of the thing, muſt often prove unſucceſsful; ſucceſs depending leſs on the number of peſ-

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tilential accidents to be concealed, than on the Places where they happen, and the quality of the perſons who are the ſubjects of them.

The riſk ariſing from the chance of ſhips being deſpatched with clean patents, when the plague actually exiſts in the place, is aſſuredly not ideal; and no argument will avail with the natives againſt concealment, whereby ſuch patents may be obtained, till a greater latitude be admitted. Till the temptation to deceive be leſſened, and truth be encouraged to come forward, by an aſſurance that circumſtances candidly expoſed, might often obtain a patent, by which the ſhip, on her arrival, would not be ſubject to a reſtraint much longer than if the patent were clean: inſtead of an embargo, grounded ſometimes on diſtruſt that matters are worſe than they really are.

As things ſtand at preſent, bills of health are not entitled to that degree of credit they ought to have. A clean patent, at certain times, brings, in reality, leſs ſecurity to the kingdom than one touched, or expreſſive of ſuſpicion. The one puts the council of health on its guard, the other lulls it into imaginary ſecurity: and, as long as clean patents only are admitted in England, it may juſtly be apprehended that, under the maſk of that title, ſuch as in truth ought to have been reckoned touched, if not foul, will ſometimes find their way, in ſpight of any thing in the power of the Conſuls abroad, under the preſent conſtitution, to hinder.

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Bills of health, or patents, ſhould be admitted under two denominations, clean and touched—The clean, ſo reckoned, ought ſometimes to be deemed touched—Inſtructions to Conſuls—Practical examples, ſhowing the expedience of admitting touched patents—Neceſſity of ſupplying the Conſuls with better means of information—Eſtabliſhment of ſurgeons propoſed—Inſtructions to ſurgeons.

IN the Quarantine Bill preſented to the Houſe of Commons, by Lord Barrington, on the 8th of February, 1753, it was propoſed to be enacted, "That our Conſuls abroad, reſiding in any part of the Ottoman dominions, or in any other port, when his Majeſty, ſhould ſo order in Council, ſhould ſee that the maſter of every ſhip which ſhould touch at any place within his conſular diſtrict, ſhould, at the coſt and charges of the ſaid maſter, be provided with a Yellow Jack, with a Swallow Tail; and ſhould ſign and deliver to every ſuch maſter, upon reaſonable requeſt, a bill of health, and manifeſt, certifying the quantity and quality of all goods taken on board, at what time the laſt peſtilential contagion, or ſuſpicion thereof, began; what number of perſons were ſuppoſed to have died of the plague; and when it apparently ended within his juriſdiction."

Various objections being made to the yellow jack, that clauſe was rejected; and in the act, nothing is contained, reſpecting bills of health, further than that every maſter of a veſſel, on his arrival at the place appointed for quarantine, ſhall deliver ſuch bill of health and manifeſt as he ſhall have received from any Britiſh Conſul, together with his log-book and journal, under a penalty of five hundred pounds.

Bills of health were probably conſidered as ſufficiently eſtabliſhed already by his Majeſty's inſtructions to Embaſſadors or

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Conſuls, in Europe; and in regard to Turkiſh ports, no ſhip, by the Levant Company's orders, could be deſpatched without one. But the rejected clauſes, propoſed to be inſerted in the bill of health, namely, "*at what time the laſt peſtilential contagion, or ſuſ-*" *picion thereof, began; and what number of perſons were ſuppoſed to* " *have died of the plague,*" had better, perhaps, have been received.

In the mean while it would ſeem expedient, that bills of health, or patents, ſhould be admitted under two denominations; namely, clean, and touched, or ſlightly tainted.

The clean patent, in the ſenſe commonly received, implies a declaration of the Conſul, under the public ſeal, that the place of his reſidence is then entirely free from the plague, and all ſuſpicions of plague, and has been ſo for ſuch or ſuch a time, but at leaſt for forty days preceding the date of the patent. The term of forty days having been adopted by common conſent in the ports of the Mediterranean, may on that account continue, as hitherto, to entitle the patent to the appellation of clean, but conſidering the difficulty, as ſhown before, of aſcertaining preciſely the time when the plague ceaſes, it ſeems reaſonable in England, where there are no regular Lazarettos, that all patents bearing forty days only, as well as ſuch declaring the place to have been free for any ſpace of time leſs than three months, ſhould be deemed touched, and the quarantine of the goods regulated according to circumſtances.

By circumſtances are here underſtood, the beginning and progreſs of the plague at the place, in the ſeaſon immediately preceding the date of the patent; a conciſe account of which ought to be tranſmitted by the Conſul, by the firſt ſhips deſpatched, as well as over land, by way of Vienna. In this manner the council of health would be in poſſeſſion of information on which to form an equitable deciſion; inſtead of relying merely on the patent, or on the very precarious intelligence collected from intercepted

tercepted letters, or from ſuch as the merchants are, on ſome occaſions, called upon to produce. The intelligence procured in this indirect manner is very little to be depended on; for it is a conſtant and prudential maxim of the merchants, to avoid the ſubject altogether in their correſpondence, or at leaſt to be very ſparing on it; from a juſt apprehenſion, founded in experience, that an unguarded paragraph about the plague, miſunderſtood in England, is capable of raiſing very needleſs alarm, and embarraſſing their ſhips.

Beſides the immediate advantage of enabling the council to form a deciſion, the tranſmiſſion of intelligence directly from abroad, would in time furniſh materials for an authentic hiſtory of the progreſs of contagion in the different *ſcales* of the Levant; from which, uſeful hints might be extracted for the future regulation of quarantines. Had a regiſter of this kind been kept from the time quarantines were inſtituted in England, no caſe hardly could now ariſe wherein the council would not have it in their power to derive ſome aid from precedent, in their deliberations.

The advantage of being acquainted with the uſual courſe of the plague, the ſeaſons of its beginning and its ending in different places, and of having an authentic ſtate of the progreſs of the contagion, in the ſeaſon preceding the date of the patent, will appear clearer from examples.

The plagues at Aleppo of 1742, and 1760, continued three ſucceſſive years. This probably was not the uſual courſe: but whether it was or was not, and in what manner it may have varied, in a certain ſeries of years, would have been matter of no doubt, had there been a regiſter, in the council of health, to recur to.

Had

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Had a ſhip in July, 1760, arrived from Scanderoon, with a patent from Aleppo, dated the 15th of May, the patent would have declared the city to have been free from the plague for fourteen years. If ſhips ever were admitted to immediate prattique, this ſhip was ſurely entitled to it. But, on the ſuppoſition made above, of information tranſmitted by the Conſul, the council at the ſame time, with the bill of health, would have received accounts of the plague being at Tripoly, and other maritime towns to the ſouthward, and of its having reached Damaſcus.

How ſhould this intelligence have affected the ſhip and cargo; ought ſhe immediately to have been put under a rigorous quarantine? A previous acquaintance with local circumſtances would moſt probably have determined it not to be neceſſary. The place ſhe came from, and, what is more, the places from which her cargo was collected, were free from ſuſpicion. The cargo and paſſengers therefore need not have been ſubjected to a much longer quarantine than uſual.

Suppoſing a veſſel deſpatched at the ſame time with the former, but, making a longer paſſage, had happened not to arrive till after advice was received of the plague having broke out at Aleppo, a few days after the date of her patent; would not that make ſome difference? No reaſon appears why it ſhould; both ſhips, the length of the voyage excepted, being in the ſame predicament, her patent, like that of the former, ſhould have been conſidered as touched.

The patent of a ſhip deſpatched from Aleppo in the month of October, of the ſame year, would have ſet forth the plague's having ceaſed forty or fifty days: but on the general principle beforementioned, the patent, though clean, ſhould be deemed touched, on account of the probability of merchandiſe being purchaſed and ſhipped, after the plague had ſpread in the town, and in the ſilk villages.

In

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In 1761, the patent of a ſhip deſpatched the beginning of March, declaring the city free for five months, would have been adjudged perfectly clean. But the ſilk and other goods being the produce of a peſtilential year, ſhould have been ſubjected to the ſame quarantine as if the ſhip had brought a touched patent.

Of the goods in the caravan prevented from proceeding in the month of March of that year [1], a conſiderable part was in the circumſtances juſt mentioned; but the daily addition of new bales, which, as it turned out afterwards, had been packed up in the courſe of ten days after the plague had broke out in the town, vitiated the whole, and the Conſul found himſelf reſtricted from granting a clean patent. Had there even been no addition of new bales, he would not have thought himſelf at liberty, after the plague was declared on the 30th of March, to grant a patent for the very ſame goods which would have obtained one, without ſcruple, in the beginning of that month. Indeed, he was left no option; it was impoſſible for him to declare the city free from the plague, and he had no means of modifying the declaration of its exiſtence, by an explanation in the patent: no diſcretionary power, in this reſpect, being entruſted to him by the laws. So much for clean patents.

The ſecond kind, the touched, or ſlightly tainted, ſhould expreſs the ſtate of the circumjacent country and villages, which may have ſuffered, or be ſuffering, from the plague, though the place of the Conſul's reſidence itſelf ſhould remain ſound. They ſhould alſo mention the arrival of infected veſſels in the port [2]; and

[1] Hiſtorical Journal.

[2] The Levant Company's order, prohibiting ſhips leaving Turkey without a bill of health, ſeems to circumſcribe the declaration of the patent to the place of the Conſul's reſidence; "which bill of health ſhall expreſs the exact ſtate of the health of "the place, from the beſt information which can be had." By their fifth order, a ſhip is permitted to come away after the plague has broke out, provided her goods

and ſtate ſuch ſuſpicious reports, reſpecting the city, as the Conſul may ſometimes not have it in his power to aſcertain effectually, and which, though he cannot aſſert them to be groundleſs, ſtill leſs can he declare them to be well founded. Were clean patents to be refuſed in this ſtate of uncertainty, the Engliſh magiſtrate would probably incur the cenſure of being too rigorous,

The admiſſion of touched patents would extricate the Conſul from this dilemma, the merchants would have leſs cauſe for complaint, and, what is of ſtill more conſequence, one great inducement to the concealing peſtilential accidents being removed, authentic intelligence would more eaſily be procured, and the credit of patents be better eſtabliſhed. At the ſame time, not to leave a latitude liable to abuſe, the circumſtances in which touched patents may be granted might be defined, in general inſtructions to the Conſuls, ſuited to their different ſtations.

The ſpirit animating ſuch inſtructions ſhould always preſerve a due regard to the accommodations of trade, at the ſame time that it firmly conſults the public ſafety. The articles ſhould be expreſſed in ſuch plain terms, as to leave as little room as poſſible for difference of interpretation. The Conſul ſhould have his rule to refer to, and the merchant ſhould ſee clearly how far he may reaſonably requeſt. The prevention of inteſtine diſſentions, in a foreign ſettlement, is preſerving it from an evil, leſs only than the plague.

The detail of all theſe regulations muſt be left to the diſcretion of the council of health. It will be ſufficient here to propoſe a few practical examples.

were taken on board before its appearance, and that ſhe brings a certificate of her particular caſe from the Conſul. The patent here would be foul, the modification of it is contained in a ſeparate certificate; which in effect amounts to a touched patent. But no goods can be laden upon any certificate, after a ſingle accident of the plague has happened in the place.

A patent

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A patent granted at Aleppo in the firſt fortnight of May, 1760, would have been perfectly clean; the only objection to it muſt have ariſen from the ſtate of Damaſcus, which common uſage would have rejected as inſufficient. In the end of May, a few peſtilential accidents intervening in the town, a clean patent could no longer have been iſſued. In ſuch a caſe, might not a touched patent have been granted, and a ſhip, on departure, though part of her cargo was ſtill on the road to Standeroon, have been ſafely permitted to load, and to proſecute her voyage?

In the month of October, of the ſame year, clean patents were iſſued; which, however, I have already given reaſons for thinking ought to have been treated as touched. But ſuppoſing a veſſel, after obtaining her patent, had procraſtinated her departure till the latter part of the year; and, in the courſe of November and December, two or three accidents had intervened to interrupt the Conſul's reckoning; would it have been leſs ſafe to have permitted the veſſel to proceed immediately with a touched patent, than to have let her remain forty days longer, in expectation of a clean one? In that interval new purchaſes would, in all probability, have been made, and the new goods joined with the others.

In the caſe juſt ſuppoſed, if the veſſel had received no new merchandiſe from Aleppo, after the accidents in November or December were known, ſhe might, agreeably to the company's orders, have departed with her firſt patent, accompanied with the Conſul's certificate, which would of courſe mention the reappearance of the plague; but ſuppoſing goods deſpatched from Aleppo, by the caravan, to be on the road to Scanderoon, at the time of the reappearance of the plague in that city, the goods not being actually laden before the accidents were known, the ſhip could not take them on board, without forfeiting her clean patent. She muſt therefore depart with what ſhe may have already got on board, leaving the reſt of her intended cargo behind, or muſt

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wait till the expiration of forty days, in hopes of being permitted to load with a clean bill of health; for the Levant Company's orders contain nothing about airing the goods at Scanderoon, in the ſame manner as at Smyrna and Alexandria. In this caſe it deſerves conſideration, whether there would be more danger, ſuppoſing Antioch and Scanderoon free from ſuſpicion, in permitting her to take the lag bales on board, after being expoſed ſome days to the air at Scanderoon, and deſpatching her with a touched patent, than in detaining her forty days in port, in uncertain expectation of obtaining a clean one. Amongſt other reaſons for this, it may be urged that while peſtilential accidents are few, there is a great chance of their remaining concealed: the ſhip may depart with a clean patent, but will have prolonged her intercourſe with a place, only declared free, becauſe a few accidents, which would vitiate the patent, happened to elude the vigilance of the magiſtrate.

In 1761, the plague made conſiderably more progreſs at Aleppo, and though it ſometimes decreaſed to a great degree, it did not entirely ceaſe, in the winter. In this reduced ſtate, as clean patents could not be granted for England; ſo touched patents ought, in like manner, to be precluded. The ſources or fomites of infection were ſpread more widely than in the former year; the adjacent territory, with ſeveral of the ſilk villages, had been infected; and the unuſual continuance of the diſtemper in the winter, left room to fear, that the peſtilential conſtitution of the air was not entirely paſſed.

The plague, in 1762, raged much more violently than ever, but ceaſed in the autumn. Clean patents were iſſued towards the end of October; but had not the reckoning for bills of health been interrupted about the middle of September, by ſome peſtilential accidents, they might have been legally iſſued the beginning of that month [3].

[3] Subjoined is a copy of my anſwer to a billet from the Conſul, on which he founded

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Every reaſon, in 1760, for deeming clean patents, dated only forty days after the ceſſation of the plague, as touched, held more cogently in 1762, becauſe the plague had ſpread more widely than ever, and the goods to be exported at that time muſt, at leaſt a large part of them, have been the product of three plague years.

It may at the ſame time be obſerved, that the Conſul could not, conſiſtently with uſage, have declined iſſuing clean patents; for, if the reports of the plague, circulating in the place, were all indiſcriminately to be conſidered as impediments to patents, the Conſul of Aleppo would not be exempt from embarraſſment, even in times of perfect tranquillity, much leſs in the ſpring ſeaſon

founded the bills of health. It is certainly a difficult matter to pronounce abſolutely, that a place lately viſited is now free from the plague. The Conſul's billet ran thus:

Dear Sir,

AS I am to give a bill of health to-morrow morning for the *Reward*, I ſhould be glad to know from you, whether any difficulties have occurred ſince I laſt ſpoke to you on this ſubject.

Friday Evening,
October 29, 1762.

I am, &c.

Aleppo, Oct. 29, 1762.

To William Kinloch, Eſq.

SIR,

SINCE the peſtilential accidents which happened after the middle of September, and occaſioned your making an alteration in your reckoning of the time for granting bills of health, I have myſelf, though engaged in very extenſive practice, and viſiting, without reſerve, all ranks of people, met with no other inſtances of that kind.

I think proper at the ſame time to acquaint you, that in this interval reports of perſons being infected, and dying of the plague, have not been wanting in the city; of theſe reports ſome were ſo vague and uncertain, that I myſelf ſaw no reaſon for giving credit to them; others, into which I had an opportunity of enquiring, proved to be without foundation; and ſome few concerned patients under my own care, where I could not well be deceived. This, Sir, is the truth, ſo far as I know, regarding the ſtate of the city, in reſpect to the plague, and which in compliance with your requeſt I now communicate.

I am, &c.

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ſucceeding a plague year; indeed, in ſome places, clean patents could hardly ever be granted at all. The advices propoſed to be tranſmitted by the Conſul, at the ſame time with the bill of health, by ſtating collateral circumſtances more at large, would enable the council of health to judge more diſtinctly on the whole, and to regulate the ſhips quarantine upon more ſolid ground than the ſimple patent, in its preſent form.

It may very reaſonably be ſtated, as an objection to what has been ſaid on the head of advices to be tranſmitted to the council of health, by the Conſul, 'that there ſeems to be a palpable in-'conſiſtency in granting a clean patent, which ſtands contra-'dicted by his private advices, and that a ſhip, departing in 'confidence of being received agreeably to the tenor of her pa-'tent, would find herſelf on the footing of a ſuſpected ſhip, 'upon her arrival in England.'

The objection is in ſome meaſure juſt; but cannot be obviated, as long as patents of one denomination only are admitted. Thoſe termed clean, have been ſhown to be ſometimes in reality touched, and the council of health, without implicitly relying on a title, will do wiſely, under certain circumſtances, to deem them ſuch, in the regulating quarantines; at leaſt till ſuch time as the legiſlature ſhall ſee fit to make alteration in the laws now exiſtent. At Marſeilles, the firſt clean patents iſſued after the ceſſation of the plague, in a ſcale of the Levant, are deemed foul, if the ſhip did not ſail within twenty days after ſuch patents began to be iſſued[4].

It may have been remarked all along, that much reliance is placed on the advices ſuppoſed to be tranſmitted by the Conſul;

[4] Les premieres patentes nettes qui ſont delivérées aprés la ceſſation de la peſte dans une Echelle, ſont regardées comme brutes ſi le Batiment n'eſt parti Vingt jours aprés qu'on a commenc, d'expedier ces patentes. Memoire ſur le Bureau de la Santé, p. 40.

but

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but it had before been mentioned, as a capital defect, that no provision was made for supporting or assisting the Consuls, in collecting the intelligence expected from them. As a remedy for this defect it will deserve consideration, whether it might not be expedient to have a regular surgeon, with a moderate salary, at each of the three principal settlements, Constantinople, Smyrna, and Aleppo. They should be appointed by the Company, and not be removeable unless upon the representation of the Consul and Factory, stating their reasons for such removal; nor at liberty to quit the settlement, without giving six months previous notice to the Company.

The instructions to these surgeons must be adapted to their respective situations; but principal articles in all should be the following. That the surgeon should exert his utmost vigilance in assisting the Consul to procure the earliest intelligence respecting the plague, either in the place of his residence, or in its environs. That he should make it his business, as far as circumstances will permit, to enquire into such rumours as he may happen to hear; and, where pointed instances are mentioned, he himself should endeavour to visit the suspected, inform himself of their cases, and, if there be eruptions, inspect them himself. That, in like manner, any time before the plague be openly declared, he should be obliged, at the requisition of the Consul, to visit any suspected patient to whom the Consul obtains him access, and report accordingly. That also, in the decline, or towards the termination of the plague, he should endeavour to inspect such suspicious cases, as might, by interrupting the Consul's reckoning of quarantine, unnecessarily, perhaps, impede the issuing of bills of health. That the case, together with his opinion, be delivered in writing to the Consul, and the reasons for that opinion be clearly and shortly stated. That he should not, under any pretence whatever, in the beginning or conclusion of the plague, conceal any accidents falling under his notice, which might affect the patents, nor defer communicating them

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them to the Conſul. And finally, That negligence in the performance of the above articles, or voluntary violation of them, ſhould ſubject him not merely to diſmiſſion, but to ſuch other penalties as ſhall ſeem fit to be inſerted in the covenant between the Levant Company and him, on his acceptance of the appointment.

Beſides theſe indiſpenſable duties, he ſhould be ſtrictly enjoined to embrace all opportunities of informing himſelf of every thing relative to the plague; its ordinary courſe in the country; the ſucceſs of different methods of treating it, as well by the natives as by others; the manner in which it was introduced, or ſuppoſed to be introduced; the concomitant ſtate of the weather, winds, &c. the proportion of the infected that recover; the amount of the mortality; and all other circumſtances conducive to the improvement of the medical and political hiſtory of the diſeaſe. The reſult of his experience and obſervation, to be drawn up at proper leiſure, in form of a memoir, to be delivered in to the council of health, and preſerved in their records.

The ſalaries affixed to theſe ſurgeoncies ſhould be moderate, in order to prevent their ever becoming objects but to ſuch as mean to exert themſelves, and who will be under a kind of neceſſity of exerciſing their profeſſion among the natives: a material circumſtance for their acquiring a knowledge of the ordinary epidemics of the country, and for preventing the being impoſed upon by fallacious reports of the plague. But as the epidemic diſtempers, as well as the plague, often begin, and in general ſpread moſt, among the lower claſſes of people, unequal to the expence of an European doctor's attendance, it might be adviſeable, as the means of inducing him to extend his practice among the poor, to ſend annually from England, ſuch medicines as the doctor himſelf ſhall chuſe, to a certain amount; it ſeeming but reaſonable that the ſurgeon, who is willing to give his attend-

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ance *gratis*, ſhould not be at the expence of the medicines he diſpenſes. CHAP. VI.

It may be thought an office, ſuch as now deſcribed, attended with ſo much danger, and ſo little emolument, is likely to find few perſons, properly educated, who would be diſpoſed to accept it. But I make no doubt there would always be found young men inclined to prefer ſuch an appointment, for ſome years, to the ſea or army line; not to mention the proſpect of contingent advantages of practice among the Europeans, and the natives of better rank. As a further encouragement, there might be an eſtabliſhment at home of one or more ſurgeons of quarantine, to which the gentlemen who had ſerved in Turkey ſhould be excluſively, or preferably entitled, in ſucceſſion; not ſtrictly according to ſeniority, but according to the opportunities they may have had of practice, and the diligence demonſtrated in the improvement of them; which will appear from the practical memoirs on the plague, to be delivered in by each, to the council of health.

The expence of ſuch an eſtabliſhment will appear of trifling moment to the public, if compared with the advantage of having a qualified perſon always ready, in caſe of alarm in England, to viſit perſons ſuſpected; and whoſe opinion would be entitled to more weight than that of phyſicians, though of indiſputed eminence, who have never had an opportunity of ſeeing the diſtemper in queſtion. It may be doubted, perhaps juſtly, whether there be now living in England five native Britons who have ever practiſed in the plague.

Should it be thought the propoſal of a new eſtabliſhment tends to create a new and unneceſſary expence abroad, becauſe what is propoſed to be done by the ſurgeons to be appointed, might be done by thoſe uſually eſtabliſhed at the different ſettlements, it ought to be known, that none are conſtantly eſtabliſhed there,

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and more particularly of late years. Thoſe formerly reſident, at leaſt at Aleppo, depended chiefly on practice, among the Europeans, and the natives; which, in reſpect of the latter, required a reſidence of ſome years in the country, and an acquaintance with its languages. From the narrative of the plague of 1760, at Aleppo, no general inference ſhould be drawn on this point; the perſon who acted then, having acted purely as a volunteer. I would have others bound officially to do part only of what I might have declined doing; for I do not think it matter of reproach to any one, the not poſſeſſing that degree of curioſity to ſee and practice in a diſeaſe new to him, which led me to expoſe myſelf, far beyond what was neceſſary for the information of a magiſtrate of health; and to which, I think, no one ought to be impelled but by his own inclinations.

CHAP. VII.

Regulations expedient in Turkey—Upon alarm of the plague, goods intended for Europe ſhould be ſeparated, and ſhut up—Cleaning and packing of goods in time of the plague, prohibited—The ſtate of the ſhip and crew to be aſcertained before lading—Precautions regarding goats wool, &c.—Infected merchandiſe purified before lading—Many obſtacles to ſtrict regulations in Turkey—The chief reliance ſhould be placed on proper precautions in receiving the goods in Britain.

HAVING conſidered two material points, namely the admitting ſhips with touched patents as well as with clean, and the mode of conferring more credit on patents, by ſecuring better intelligence to the magiſtrate of health in Turkey; I ſhall proceed to propoſe ſome other regulations which, at leaſt at Aleppo, are not practiſed at preſent.

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1ſt. Upon a rumour of the plague's approach, as at Aleppo early in the ſpring of 1760, it ſeems expedient that the merchandiſe, already embaled, ſhould immediately be lodged in a ſeparate warehouſe, either in Aleppo, or at Scanderoon (the door of which ſhould be ſealed by the Conſul or Factor Marine) to remain ready to be ſhipped when an opportunity offers. Goods in this predicament might be reckoned clean, though exported after the plague had broke out at Aleppo; whereas if they remained ſcattered in different warehouſes, into which other goods are brought daily, and which are frequented by the natives of different ranks, they might juſtly be reckoned doubtful.

2d. As ſoon as the Conſul ſhall receive intelligence of the plague having reached the neighbourhood, or of its having been diſcovered in the town where he reſides, he ought to acquaint the merchants, and recommend the putting apart all merchandiſe intended for England, whether embaled, or ready to be embaled, to be kept ſhut up till the autumn. He ought alſo to enjoin the abſtaining from cleaning ſilk, goats wool, drugs, &c. becauſe thoſe operations neceſſarily bring into the warehouſe a number of work people, with whom communication ſhould be carefully avoided, both in the early and latter ſtage of the plague.

3d. A prohibition of trade, or of receiving, cleaning and packing goods, in ſuſpected times, that is, between the breaking out of the plague, and the Franks ſhutting up; and for a certain time after their coming out from confinement, appears to be expedient. But the propriety of keeping goods, not equally ſuſpected, ſeparate from each other, inſtead of mixing them promiſcuouſly, and comprehending the whole cargo in a clean patent, granted, perhaps, forty days after the plague has ceaſed, is too obvious to be enlarged on.

4th. The goods embaled before the breaking out of the plague, (1) if at Scanderoon, might be embarked after expoſure for ſome

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days to the open air. If they are ſent from Aleppo, though on the journey they will be expoſed ſeveral days on the backs of the camels, yet, being then wrapt up in *labets*, which prevents the free acceſs of the air, it will be proper, on their arrival at Scanderoon, after ſtripping off the labets, to give them an airing. With theſe precautions, I conceive, they might ſafely be put on board.

5th. Previouſly to the ſhipping the goods, the Factor Marine ſhould diligently enquire into the condition of the ſhip, and the crew. Whether the crew are in perfect health: or whether they have of late been ſickly, and, if ſo, of what diſtemper. Should it appear that any contagious, or intermittent fever, or flux, had prevailed ſome time before, but had now ceaſed, the ſhip ſhould every where within be thoroughly cleanſed, and two or three times ſmoked, before taking in the goods. The clothes, hammocks, and bedding of the ſailors ſhould be ſmoked, waſhed and aired; but particularly apparel that may have belonged to any of the deceaſed, whoſe bedding ought to be deſtroyed. If ſickneſs be ſtill ſubſiſting among the crew, it is material the nature of the diſtemper ſhould be known; and if it appears to be of a doubtful kind, or attended with ſudden mortality, or with eruptions, the goods on no account ſhould be ſhipped. The Conſul of Aleppo ſhould be adviſed; and, if thought requiſite, the ſurgeon ſhould be deſpatched to Scanderoon, to enquire more ſtrictly into the actual ſtate of the ſick.

It is materially the intereſt of the merchants, that the ſtate of the crew's health, at the time of the ſhip's departure, ſhould be exactly known. Not only a mortality on the paſſage, but even the death of two or three men, though from other diſtempers than the plague, would infallibly cauſe embarraſſment; and, in foreign Lazarettos, it is the uſual practice, without regard to clean

clean patents, to deem thoſe ſhips infected which have loſt men on the paſſage[1]. CHAP. VII.

It is material alſo, that the Conſul ſhould have an exact ſtate of the ſhip laid before him, when he grants a patent; and, if the uſual form of patents be retained, extraordinary circumſtances relating to the ſhip or cargo, ſhould make an article in the Conſul's advices to the council of health.

Should it appear that any of the crew had died of the plague, or happened to be infected, during the time of taking in the cargo, an embargo ſhould be laid on the ſhip; the infected perſon ſhould, together with his cheſt and bedding, be immediately removed; the goods, already laden, ſhould be relanded for purification; and the ſhip ought to be repeatedly fumigated during her quarantine, which ſhould not be leſs than two months.

6th. The ſilk, goats wool, &c. to be cleaned and packed up, in the decline, or in the latter end of the ſeaſon, require more circumſpect treatment than in the beginning. It might be a regulation, that no work of that kind ſhould be permitted, till twenty days, according to the Conſul's computation, from the laſt peſtilential accident, were elapſed: and before the ſilk or wool be embaled, they ſhould be expoſed for ſeveral days to the air, and in that time frequently moved and turned. The reaſon for waiting twenty days before beginning to prepare the goods for exportation, is not founded on a notion that, if the goods were tainted, they could in ſo ſhort a time be rendered pure, but to obviate the riſk of infection being communicated by the perſons employed to work upon them; who, though found themſelves, may very probably ſleep in houſes that had lately been infected, and are hourly in the way of having intercourſe with convaleſcents.

[1] Traité de la Peſte, p. ii. p. 178.

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The danger to be apprehended from theſe workmen, I cannot help regarding as conſiderable, becauſe, in the beginning of the ſeaſon, I have known inſtances of their having the plague in their families, at the very time they were daily employed in the Frank warehouſes; and even of ſome of them going to work before their ulcers were healed. It was on this account that I propoſed an abſolute prohibition of employing them in the beginning of the peſtilential ſeaſon. In the autumn, when they muſt be admitted, if ſhips are to be deſpatched at all, they might be obliged to perform a quarantine of ten days, before they begin to work. That is, they ought to be kept in the khane, or ſome other ſecure place, without permiſſion to communicate, during that time, with their families; having their victuals prepared, and their clothes waſhed, in the khane, or wherever they are confined. The perſons here meant are the *Stracciadores*, or cleaners of the ſilk, the embalers, and the porters; all of whom ought to be kept under the ſame reſtrictions, during the time they are employed on the goods; or, at leaſt, till the expiration of the quarantine of forty days for patents.

I am fully aware that ſeveral difficulties may ariſe, in the execution of this regulation, and if they are not ſurmountable, I can ſee no alternative but a ſtrict prohibition againſt cleaning or embaling goods, before the expiration of forty days from the laſt peſtilential accident. For it appears inconſiſtent with every principle of precaution, that goods which have been purchaſed, cleaned, and embaled in the latter part of the ſeaſon, during the quarantine of forty days after the ſuppoſed ceſſation of the plague; while many convaleſcents frequent the bagnios and the ſtreets, and, of thoſe who were employed on the goods, ſome may have been in a ſtate of convaleſcence, and the wives and children of others may have been infected; I ſay, it appears to me utterly inconſiſtent, that ſuch goods, without any previous precautions whatever, ſhould be permitted to be ſhipped, and the ſhip diſmiſſed with a clean patent.

Should

Should one or more of the perſons employed on the goods happen to fall ſick of the plague, the quarantine muſt recommence, whatever may be the number of days elapſed: and the goods, being deemed infectious, ought not to be exported without particular precautions before lading.

7th. The goods thus reckoned infectious, of which, on a fair repreſentation of circumſtances, the Conſul muſt judge ultimately, inſtead of being exported in the firſt ſhip that receives a clean or touched patent, ought not to be permitted to be ſhipped at all, without undergoing a previous purification. This would require a diſtinct area, ſeparate from clean goods; and workmen who muſt be debarred all intercourſe with thoſe employed in other places. The unembaled goods ſhould firſt be properly aired, and ſuch as have been already embaled, ſhould be unpacked, and aired in like manner with the others, for twenty or thirty days.

This, according to Sir James Porter, was actually done formerly. "Orders with regard to merchandiſe were as effectually "enforced, and as punctually executed as at a Venetian or "French quarantine[2]." But whatever it might be in former times, the practice was not known at Aleppo in 1760, and neither there, nor at Conſtantinople, nor at Smyrna, did I perceive the traces of any areas or encloſures, deſtined for the purpoſes of ſimilar regulations[3]. Of the two places laſt named, however, I ſpeak with leſs confidence; and could wiſh that what has been ſaid on the ſubject of particular regulations, may be underſtood in a limited ſenſe, reſpecting chiefly Aleppo and Syria.

From the ſpring of 1761, to the latter part of the year following, no ſhips were deſpatched from Aleppo, the uninterupted continuance of the plague excluding all clean patents. But after

[2] Obſervations on the Turks, p. 443.

[3] The Company's orders mention only warehouſes for airing the goods.

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the month of October, 1762, the merchandiſe accumulated in that interval, might have been ſhipped indiſcriminately, without any previous purgation, and the ſhips were entitled to clean patents. To juſtify ſuch a relaxation in precautions abroad, the precautions practiſed in England on the reception of merchandiſe ſo deſpatched, ought to be much more ſtrict than I apprehend they will, upon enquiry, prove to be[4].

It may, perhaps, be poſſible to frame regulations which might, in ſome meaſure, correct the abuſes, almoſt unavoidable, on the preſent ſyſtem, in the deſpatch of ſhips from Turkey to England, in ſuſpicious times, but it may be very much doubted, whether the beſt concerted regulations could be effectually carried into execution, without previouſly reſtoring the excluſive privilege of the Levant Company[5], and the ancient practice of annual ſhips[6]. The neceſſity of new regulations, in reſpect to quarantine, was foreſeen at the time of laying the charter open, and experience has ſhown the conjecture to have been right. The ſalutary preſervative regulations of the old Turkey merchants againſt the plague, could no longer be enforced, and, in a man-

[4] Doctor Brownrigg, in a ſmall Tract on Peſtilential Contagion, publiſhed in 1771, which I had not an opportunity of ſeeing till lately, and which contains ſome ſenſible remarks on the ſubject, has obſerved, "that after the plague had raged two "years at Aleppo, in 1761 and 1762, the Britiſh Conſul, ſo ſoon as it had there "ceaſed for forty days, thought himſelf authorized to give the maſters of ſhips, "who had long waited to take in goods from that place, ſuch bills of health as are "uſually there called clean bills; on producing of which at the cuſtom-houſes of "this kingdom, the merchandiſe brought from that place would be permitted to be "landed without performance of quarantine, or other precautions taken; although "ſome of the ſilk, cotton, camels hair, or other goods, of which the cargoes brought "from Aleppo uſually conſiſt, might poſſibly have been long depoſited there in in-"fected houſes, and if infected with that contagion, might have communicated it "to the crew, or might retain it for a much longer time than was required for con-"veying thoſe goods into this kingdom." Conſiderations on the Means of preventing the Communication of Peſtilential Contagion, p. 10. Lond. Davis, 1771.

[5] Porter's Obſervations, p. 427.

[6] Ibid. p. 363.

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ner, became obſolete. The quarantine laws at home were improved, but the orders reſpecting Turkey ſhips, intended only as a ſuccedaneous expedient, preparatory to the future eſtabliſhment of Lazarettos, did not make ſufficient and permanent regulations, to compenſate the relaxation of reſtraints which has taken place in Turkey.

According to all appearances at preſent, neither the reſtitution of the Levant Company's charter, nor that of the practice of annual general ſhips are likely to be adopted; and numberleſs difficulties would be met with in finding places properly circumſtanced for purifying goods before ſhipping. The precautions therefore that can be taken in Turkey, ought not to be too much relied on, and are far from ſuperſeding the neceſſity of vigilance at home.

In every point of view it is of material conſequence, that the real ſtate of the place, from whence the ſhip comes, ſhould be exactly known. According to the preſent laws, his Majeſty, in council, determines the length of the ſhip's quarantine; the goods that are to be unpacked, and the time to be employed in their purification, which varies, according to circumſtances; and ſometimes the opening of goods ſuſceptible of infection, is diſpenſed with altogether.

Nothing can be more evident than that deciſions of this nature ſhould be founded on a degree of information, which, as matters ſtand at preſent, it is impoſſible, with reſpect to Turkey, the council ſhould at all times be poſſeſſed of. The conſequence of which is, that commerce is ſometimes injured by quarantines of unneceſſary length, without any additional advantage to the public ſafety, and, at other times, the public ſafety is endangered by deciſions grounded on imperfect information. The prolonging the quarantine of a ſhip to forty days, and the diſpenſing with the cargo being opened and aired, does moſt certainly afford little or no ſecurity to the ſafety of the public, and, it is no leſs certain, injures the merchant without neceſſity.

BOOK IV.

Upon the whole, as I am obliged to differ widely in opinion from Sir James Porter, in regard to the perfect reliance, which he thinks, may be placed on the regulations eſtabliſhed in the Levant, ſo I cannot help being extremely doubtful whether, in the preſent ſtate of the Turkey trade, any regulations, which may in future be eſtabliſhed there, would operate ſo effectually as to ſuperſede the neceſſity of precautions in England, in the reception of ſhips coming directly from the Levant. Thoſe which have been juſt propoſed, or others of a ſimilar kind, but more correctly conſtructed, would certainly be of ſervice, as they would remedy ſome abuſes, and ſome defects: but I can foreſee ſo many difficulties, ariſing from local circumſtances, to the carrying them effectually into execution, that it appears to me highly becoming the wiſdom of the legiſlature, to provide for the public ſafety, in a manner leſs precarious. The barriers already raiſed will admit of ſome amendment, but ſhould be conſidered merely as temporary defences, till more effectual can be erected: till the condition of the times ſhall permit the parliament to reſume, at leiſure, the project of eſtabliſhing regular Lazarettos, which was ſtrongly in contemplation in the year 1752, and again in 1764. Theſe only can promiſe permanent ſecurity to a commercial nation, againſt bringing in the infection of the plague from foreign parts.

A

TREATISE

OF THE

PLAGUE.

BOOK V.

Of Lazarettos and Quarantines.

CHAP. I.

Objections to Lazarettos and Quarantines, aſſerting their being inadequate to the purpoſes intended, unneceſſary, and even prejudicial to the public health, diſcuſſed.

IN the cloſe of the preceding book, I have concurred in the opinion, that proper Lazarettos, and Quarantines regularly conducted, are the only means a commercial nation ought to truſt in, for preventing the infection of the plague being brought from other countries. In the preſent book I ſhall give the ſketch of a Lazaretto, and offer ſome remarks on the performance of Quarantine. CHAP. I.

Having already diſcuſſed ſeveral objections to Lazarettos and Quarantine, which repreſented them as wholly unneceſſary, becauſe the infection could not be tranſported in merchandiſe, nor communicated from one perſon to another; I ſhall now take

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notice of ſome of another kind, which, admitting what had been denied in the former objections, repreſent Lazarettos as being altogether inadequate to the purpoſes intended; dangerous to the public health, which they are meant to protect; and highly detrimental to commerce, which they clog with unneceſſary reſtraints, vexatious delays, and ruinous expences.

"What account (ſays an author who wrote againſt Dr. Mead "in 1721) can be given to merchants, for their goods ſerving "Quarantines on the frivolous reaſons of Ifs and Perhapſes, and "the whole trade and riches of a nation being troubled and in- "terrupted for childiſh and ridiculous ſuggeſtions[1]. As the "plague may be brought and propagated (in Dr. Mead's opinion) "by air, what defence can leper-houſes and peſt-houſes prove in "keeping the plague out of the country. We may as well build "a wall, to keep out larks, as barracks, to keep out plagues[2].

Dr. Pye, who treats the ſubject more fully, undertakes to ſhow that Quarantines are not ſufficient to ſecure us againſt any infection that may be ſuppoſed to be brought in goods, and that they are not the beſt means that can be uſed; but, on the other hand, are the moſt likely to occaſion what is propoſed to be prevented by them. This he attempts to prove, in eight or nine propoſitions, of which I ſhall give an abſtract; becauſe what he ſays contains the moſt material things urged on the ſubject, and he has been copied by ſeveral ſubſequent writers.

"If Lazarettos (ſays he) were made in England, for the re- "ception of perſons and goods coming from infected places, and "if it be ſuppoſed that by remaining in theſe for the ſpace of "forty days, they may be cleared of the infection they had "brought with them; nevertheleſs, conſidering the largeneſs of "our trade, there muſt be other ſhips continually arriving;

[1] Short Diſcourſe explained, 2d edit. p. 27.

[2] Diſtinct Notions of the Plague, p. 73.

"and

" and ſince perſons and goods in a Lazaretto muſt be as liable as otherwiſe to receive infection; it follows, that whenever they are diſmiſſed, though they have got rid of their own, yet they muſt, in all probability, have received, and bring with them, ſome part of the new-come infection. Whence it may appear, that if the infection can be received from perſons or goods, Quarantines are no ſecurity; and if it is not received that way, they are not only uſeleſs, but a very great grievance [3].

On this article it will be ſufficient to obſerve, that the whole proceeds on a total miſcomprehenſion of the practice of Quarantine, in a Lazaretto. The cargoes of different ſhips are kept ſeparate; the paſſengers from different ſhips, do not mingle together, or communicate; and it may be obſerved further, that few perſons, belonging to the ſhips, beſides paſſengers, enter the Lazaretto, the captain of the ſhip, with the crew, performing Quarantine on board of the veſſel.

" If the ſeeds of contagion can be brought by perſons and goods, then the making Lazarettos muſt be erecting and eſtabliſhing ſo many ſtorehouſes or ſeminaries of contagion - - - which muſt be continually encreaſed by means of infected perſons, or of perſons and goods coming from infected places: and by being thus encreaſed, and thus nurſed up, it muſt become exceedingly intenſe. Making Lazarettos therefore is bringing ſo many infected places home to us, and every perſon coming out of a Lazaretto, or every parcel of goods brought from thence, may be ſaid to come from an infected place [4].

" Either the ſeeds of contagion muſt remain in the goods, and then Quarantines are to no purpoſe, or they muſt be ſeparated from them, and conveyed away by the motion of the

[3] Pye's Diſcourſe of the Plague, p. 45.

[4] Ibid. p. 46.

" air. If the latter be admitted, it muſt be allowed withal, that " by the motion of the air, they may be conveyed farther and " farther, ſo as to ſpread the infection not only all over the La- " zaretto, but likewiſe to the adjacent cottages and villages - - - " And as the Lazarettos will be continually ſupplied with the ſeeds " of contagion, (by perſons and goods from infected places) they " may be looked upon as funds and ſources of contagion, whence " infection muſt continually flow, and be derived all around them, " and to the adjacent parts [5]."

In anſwer to this, I ſhall refer to what was formerly ſaid on the ſpreading of infection, through the medium of the air [6]; obſerving further, that from the want of proper information, the Lazaretto is here repreſented as an hoſpital crowded with infected patients. But the truth is, that infection would very rarely exiſt in the Lazaretto; and where it did, would, by vigorouſly enforcing eſtabliſhed regulations, be prevented from ſpreading, and ſoon extinguiſhed. At Marſeilles, in 1720, the plague, which firſt attacked the porters employed in opening the bales, did not ſpread in the Lazaretto.

" If it be likely that in winter the contagion may not be " taken out of goods, but that goods may ſtill retain it, though " unactive, till the warmth of the ſpring ſhall give it new life " and force, then Quarantines in winter will be a very precarious " and uncertain means, if they are not altogether uſeleſs [7]."

This is in alluſion to a remark of Mead's that, " there are in- " ſtances of the diſtemper being ſtopt by the winter cold, and " yet the ſeeds of it not deſtroyed, but only kept unactive till " the warmth of the following ſpring has given them new life " and force. - - - Now, if goods brought from ſuch a place ſhould

[5] Pye's Diſcourſe, p. 47. See book iii. chap. 7.
[6] See book iii. chap. 3. and chap. 7.
[7] Pye's Diſcourſe, p. 44.

" contain

" contain any of the latent contagion, there will be danger of " their producing the ſame miſchief in the place, to which they " are brought, as they would have cauſed in that, from whence " they came [8]." Mead's apprehenſion is juſt, on the ſuppoſition of a concurrent diſpoſition in the air of the place where the goods are imported. But it does not follow becauſe cold checks the progreſs of contagion, that infected goods cannot be purified by expoſure to the air in cold weather. The effects of winter and ſpring, in checking or promoting contagion, may perhaps, in ſome degree, be referred to alteration produced in the human conſtitution, by which it is rendered more or leſs ſuſceptible of infection, as well as to the immediate influence of heat or cold, on the peſtiferous miaſmata. Should this however be doubted, artificial heat may, in the winter, be employed to aſſiſt in the purification of the merchandiſe.

" The enforcing Quarantines will certainly and inevitably en- " creaſe the running of goods, by which means we may be as " much expoſed to the plague, if it can be imported with goods, " as if Quarantines were not enjoined. Whereas, if inſtead of " performing Quarantine (in Lazarettos) all ſuſpected ſhips ſhould " only be obliged to open all their goods upon deck, as there " would then be no new inducement to the running of goods, " fewer would be brought on ſhore without having had a pre- " vious airing; and conſequently we ſhould be better ſecured " from foreign infection, than if the Quarantine ſcheme takes " place [9]."

In propoſing to air the goods upon the ſhip's deck, Doctor Pye was not aware, beſides the riſks and inconveniencies goods would be expoſed to in an Engliſh climate, that they would thus be ſubject to a more tedious Quarantine, than in the wider ſpace of a Lazaretto, where they are expoſed to the air nearly all at

[8] Mead on the Plague, 1ſt. edit. p. 28, 29.

[9] Pye's Diſcourſe, p. 44.

once.

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once. As to ſmuggling, there is undoubtedly much to be apprehended, and it is a principal object in the Quarantine Laws to prevent it. But that we ſhould be as much expoſed from the goods brought in clandeſtinely, as if Quarantines were not enjoined; or that we ſhould be better ſecured, by airing the goods upon deck than in a Lazaretto, both from infection and ſmuggling, are ſtrange poſitions. Suſceptible bale goods from Turkey are, I believe, never ſmuggled at all, and as to ſmall parcels of ſilk or cotton ſtuffs, &c. they would certainly have a better chance of being ſafely run, in the courſe of time requiſite for airing the cargo on board, were that method adopted, than in the few days before their being ſecured in the Lazaretto. Goods intended to be ſmuggled would hardly be aired openly on deck; to expoſe them to the guards of the cuſtom-houſe, or thoſe of Quarantine, would be to increaſe the difficulty of getting them on ſhore; and therefore the notion that fewer goods would be brought in clandeſtinely, without having had a previous airing, I apprehend to be erroneous.

"If infection can be brought by ſhipping, Quarantines will be "found of precarious and uncertain uſe, unleſs they be enjoined "at all times, and to all ſhipping, from what part ſoever of the "world they come; for it may very eaſily happen, that a ſhip "may come away from a place newly infected, and be arrived "here, before we have received the news of the place's being "infected; and it muſt take up ſtill more time before the go-"vernment can have iſſued, and the proper officers can have re-"ceived, the neceſſary directions as to thoſe affairs. Farther, "goods may be brought to us from infected places by the way of "other countries, in which caſe, it is moſt probable they will "not have been unpacked, ſo that the ſeeds of contagion will "be retained in them till they are opened[10]."

[10] Pye's Diſcourſe, p. 48.

The

CHAP. I.

Doctor Pye has here, unintentionally, given a very good reaſon for eſtabliſhing a continual Quarantine, for ſhips from certain countries, where the plague often rages. The arrival of a ſhip, before the news of the place ſhe came from being infected, implies that the plague muſt have broke out there after her departure, otherwiſe it would appear on her bill of health. If ſhe came from a place very ſeldom ſuſpected, the ſuppoſed caſe might poſſibly happen; but no ſhip from the Levant ſhould ever be admitted to immediate prattique. Were regular Lazarettos eſtabliſhed, I conceive all ſuſceptible goods from the Levant would be landed there; and the ſhip and crew, after unlading, would perform a certain Quarantine; in which interval advices moſt probably would be received, to enable the council to regulate the Quarantine of the goods. But there is not the leaſt neceſſity for laying all ſhips under the ſame reſtraint with thoſe coming from the Levant. As to the probability of contagion being brought by the way of other countries; there are, perhaps, no European countries with which we have direct commerce, who are in the uſage of receiving ſuſceptible merchandiſe, without taking ſome previous precautions, unleſs ſuch merchandiſe has ſomewhere or other performed Quarantine: and this precludes the probability of the goods remaining all along unpacked [11]. But granting ſome poſſible danger to be apprehended from theſe unuſual channels, does it follow that all the other avenues, by which experience has ſhown the contagion may find acceſs, ſhould be left unguarded? and that unleſs Quarantines were enjoined at all times,

[11] I am perhaps miſtaken in conceiving that all ſuſceptible merchandiſe is unpacked every where on the Continent; the contrary is aſſerted in reſpect to Holland. "The cottons that come to us by way of Holland, though ſhipped in the "Levant, in time of the plague, are, while under Quarantine in Holland, never "opened and aired, as is done in all the Lazarettos in the Mediterranean, but for-"warded to England in their original packages, where they perform again the ſame "ſlovenly Quarantine; and are then ſent down to our manufacturing towns, "where they are firſt unpacked, and where, by this means, the plague may very "eaſily be introduced." Letter from the Smyrna merchants. Howard on Lazarettos, p. 31.

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and to all "ſhipping whatever, they muſt be very uncertain and "inſufficient meaſures of ſecurity."

"And though ſuch an univerſal Quarantine ſhould be enjoined, "even ſtill we ſhould not be ſecure; for if ſhips coming from "infected places be permitted to come near the ſhore, it will be "impoſſible to prevent all kind of commerce and correſpondence "with them[12]."

The prevention of ſmuggling and other irregularities will require vigilance, but is not impoſſible, becauſe it is actually effected very often. A law is not deemed uſeleſs, becauſe a moral poſſibility may be alleged of its being violated. An interdiction of all improper communication (for correſpondence of every kind need not be prohibited) with ſhips liable to Quarantine, enforced under ſevere penalties, will certainly leave the ſea coaſt leſs expoſed than it would be without the reſtriction of any laws whatever.

After all theſe objections to Quarantines, it is at length aſſerted, "that we find in fact, they are not ſufficient for keeping off the "plague; for though at Marſeilles all ſhips coming from Turkey, "or other places ſuſpected of infection, have been obliged to "perform Quarantines, yet we ſee thereby they have not been "ſecured; the plague has found its way amongſt them notwith-"ſtanding - - - If it be ſaid, that poſſibly it might be for want "of due obſervance of them, I anſwer, it is ſo far from being "likely they ſhould be performed more ſtrictly here, that we "cannot hope to have them near ſo well obſerved; for as the "trade to London is vaſtly larger than to Marſeilles, hence it "will become more difficult to ſee the due obſervance of them; "and beſides, if in an arbitrary kingdom a ſtrict obſervance can-"not be exacted, it muſt not be expected in a free govern-"ment[13]."

[12] Pye's Diſcourſe, p. 49.
[13] Ibid. p. 47.

The

CHAP. I.

The firſt part of the objection amounts to this, that becauſe Quarantines do not afford infallible ſecurity againſt the plague, they therefore are uſeleſs. That they are not infallible, muſt certainly be allowed; and in that defect they partake in common with almoſt all human precautions againſt the evils of life: but their utility is evinced by the experience of Marſeilles [14], not to mention that of ſundry Italian ſtates, which have long adopted them [15]. The laſt part of the objection is confeſſedly juſt; difficulties in the carrying ſtrict regulations into execution, may ariſe in England, which are more eaſily ſurmounted in France, and therefore it will require all the wiſdom of the legiſlature to frame laws, and ſecure the rigid execution of them, without encroaching too far on the liberties of the ſubject, in a free government. But, amongſt other difficulties, the great ſuperiority in the number of ſhips need not be enumerated; for, if I am not miſtaken, more ſhips from the Levant enter the port of Marſeilles in one year, than the port of London in the courſe of ten.

"But let it be ſuppoſed (ſays Doctor Pye) that Quarantines "could in ſome manner or other be enforced, ſo as to become "an effectual means of ſecurity; I am perſuaded it might ſtill "be made appear, it would not be for the intereſt of this nation "to enforce them. - - - Though the plague be an evil much to "be dreaded, yet if the meaſures neceſſary for the ſecuring us

[14] See Mead, p. 44.

I was aſſured at Marſeilles that ſince the year 1722, ſeveral inſtances have been known of perſons being infected in the Lazaretto; and whilſt I performed Quarantine there, was ſhown the encloſure deſtined for perſons infected, which my guard told me had been occupied a few years before. Strict regulations prevent the infection from ſpreading.

The regulations of the Lazaretto at Marſeilles have been much improved ſince the year 1720. Several abuſes were at that time expoſed to view, which were corrected in the regulations of 1731. See Traité de la Peſte, p. ii. p. 173, and Memoire ſur le Bureau de la Santé, Marſeille, 1753.

[15] See Muratori del Governo Politico della Peſte, lib. i. c. 1.

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" from it muſt occaſion more and greater evils, it may be moſt " adviſable to run the riſque of the plague, rather than ſubmit " to ſuch hard meaſures. Now as it cannot be doubted but the " enforcing Quarantines in a trading nation, muſt occaſion many " and great inconveniencies and evils; theſe ſhould be conſi- " dered as well as the good we may thereby hope to have ſe- " cured to us. The good we may expect from ſuch meaſures is " the keeping off the plague; and the evils to be feared are the " decay and ruin of trade. The plague may poſſibly deſtroy a " hundred thouſand lives; but the loſs of trade may ſtarve and " deſtroy ten times a hundred thouſand; for Quarantines will " load our foreign commerce with ſuch hardſhips, and embarraſs " it with ſuch inſuperable difficulties as will very much diſ- " courage trading, and very greatly diminiſh it. The conſe- " quences of the decreaſe of trade, muſt be the decreaſe of riches, " of manufactures, of the cuſtoms, of public and private credit; " hence bankruptcy, idleneſs, and poverty, all of which evils " muſt be in ſome degree or other immediate and certain; " whereas the evil to be avoided (the plague) is altogether un- " certain, has not happened theſe fifty-ſix years, and probably " may never happen again [16]."

I conceive it is totally unneceſſary to waſte much time in commenting on this laſt objection. The dreadful conſequences predicted are certainly ſuch as Quarantines, which affect but a ſmall branch of the Britiſh commerce, can never be productive of; and, I believe, a very ſmall proportion of thinking men could readily be perſuaded, that a plague which in England ſhould deſtroy a hundred thouſand lives, would not more generally interrupt commerce, and prove more effectually ruinous to the induſtrious claſſes of mankind, than all the inconveniencies, however exaggerated, that can be ſuppoſed to ariſe from the means employed to preſerve the country from its importation. Few perſons, in a matter of ſuch ſerious conſequence to mankind, would heſi-

[16] Pye's Diſcourſe, p. 50.

tate

tate in rejecting a propoſition raſhly hazarded "That the ne- CHAP. II.
"ceſſary immediate injury and loſs that muſt be occaſioned to a
"trading nation from the enforcing Quarantines, will be more
"than equal to the riſque it runs without them of having the
"plague, which muſt be allowed very uncertain, and what may
"never happen; or that the certain evil will much more than
"counterbalance the uncertain good[17]."

I forbear mentioning ſeveral other writers who oppoſed the inſtitution of Lazarettos and Quarantines, about the year 1721 and 1722, finding little or nothing, in the arguments urged by them, different from what has juſt now been produced from Doctor Pye.

CHAP. II.

General ſketch for a Lazaretto—Prattique Houſe—Mode of delivering proviſions for the ſhip's company.

HAVING obviated the principal objections[1] I have met with, to the expediency of Quarantines and Lazarettos in England, I ſhall proceed to make ſome remarks on the practice of them. Firſt, on the ſuppoſition of a regular Lazaretto being erected; and afterwards, on the mode at preſent actually adopted. The Lazaretto I conſider as infinitely preferable; the other, as ca-

[17] Pye's Diſcourſe, p. 53.

In reſpect to the ſuppoſed injury to commerce, I ſhall refer to Mr. Howard, (on Lazarettos, p. 26) who has given the unanimous opinion of the Britiſh merchants in the Levant, on this head, and, from their ſtatement, it would appear that a Lazaretto, in England, would be a great advantage to commerce.

[1] Objections to Lazarettos, as well as to other preſervative regulations, have been made by other nations as well as the Engliſh; and turn moſtly on the abuſe, neglect, or perverſion of regulations. Muratori, lib. 1. c. xi. p. 96.

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pable of ſome improvement in its regulations, but liable to dangerous abuſes.

The conſtruction, extent, and arrangement of the different parts of Lazarettos, muſt be accommodated to circumſtances of commerce, as well as to the various diſpoſition of the ground on which they are erected; but the general plan may be nearly the ſame in all[2].

The ſituation ſhould be inſulated, dry, healthy, and airy, with a ſource of water within itſelf, or ſo near other ſources as to be eaſily ſupplied from them. The encloſure ſhould be of ſufficient extent to admit the neceſſary ſubdiviſions, with proper ſpaces between each; for the whole area being encompaſſed with a high wall, ventilation muſt not be impeded, by crowding compartments within too cloſely together. The wall being not ſo much intended for the prevention of perſons making their eſcape, as of the clandeſtine conveyance of goods or ſmall parcels; a ſecond wall is ſometimes erected, at ſuch a diſtance from the firſt, that it is impoſſible to throw any parcel over both[3].

[2] The indefatigable pains taken by the late humane Mr. Howard, in the collection of plans and deſcriptions of foreign Lazarettos, which he liberally publiſhed laſt year, renders it ſuperfluous for me to give more than a general ſketch, referring to his book for a detail of minutiæ.—It is with great pleaſure I have it in my power to make this reference, as Mr. Howard's enquiries were conducted on a much more extenſive ſcale than I was capable of, when travelling in France and Italy, ſome years ago.

In the above ſketch, I keep the Lazaretto at Marſeilles, where I myſelf performed quarantine, chiefly in view, without pretending to exhibit a regular plan; and indeed make occaſional deviations. The Traité de la Peſte, and the Marſeilles Memoire ſur le Bureau de la Santé, furniſh many inſtructive hints for the conſtruction of Lazarettos, and Mr. Howard has perhaps left little more to be deſired on the ſubject.

[3] The walls of the Lazaretto at Marſeilles are twenty-four feet in height, and a ſpace of thirty-ſix feet is left between the inner and outer wall. Memoire ſur le Bureau de la Santé, &c. p. 7. See alſo Traité de la Peſte, p. 180.

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CHAP. II.

The Lazaretto ſhould have three gates, one towards the land, and two towards the water. Each of the water gates ſhould have its ſeparate quay, one for receiving the merchandiſe from the ſhip, the other for delivering them, after the having performed quarantine. The quays to be ſo contrived, that the lighters loading or unloading ſhould have no communication with each other.

That part of the encloſure deſtined for the reception of goods, ſhould be divided into two diſtinct compartments, one for cargoes coming with clean, the other for thoſe with touched patents; and there ought to be a third, ſmaller than either of the other two, for infected goods. For though it may be adviſable in England, at leaſt till experience be acquired by practice, either to receive no ſhips with abſolutely foul patents, or to have a diſtinct Lazaretto for their reception; yet as the infection may happen to diſcover itſelf in ſhips provided with other patents, or in their cargoes in the Lazaretto, it will be better to make proviſion for ſuch accidents.

In each of the compartments above mentioned, commodious ſtone buildings ſhould be erected, for airing the goods; and ſo arranged, that the cargo of each ſhip may be kept ſeparate, without any poſſibility of illicit interchange of bales, or ſmall parcels[4]. The porters employed in purifying the reſpective cargoes, and the clerks or others ſuperintending them, ſhould be debarred all intercourſe; they ſhould lodge and eat ſeparately; and no communication, between thoſe employed on different cargoes, be permitted, under any pretence whatever. That the ſeveral ſhips who brought clean patents, came from the ſame place, and arrived in port at the ſame time, ſhould, in reſpect to their cargoes, be deemed no reaſons for exemption from the above regulation.

Another diviſion of the area ſhould be allotted for infirmaries; one for perſons taken ill on board, or in the Lazaretto, with

[4] Traité de la Peſte, p. ii. p. 186.

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dubious ſymptoms; a ſecond, for perſons manifeſtly infected; and a third, for convaleſcents from the plague. The firſt and ſecond ſhould conſiſt of ſmall ſeparate chambers; the third may be diſpoſed in wards. Theſe buildings may be of a very moderate ſize, at ſome diſtance from each other, and made as airy as poſſible. The infirmary for convaleſcents ſhould have a fumigating chamber, and a bath.

For the accommodation of paſſengers, two ſeparate buildings ſhould be erected; the one for thoſe with clean, the other for thoſe with touched patents; both being provided with a vaulted room for fumigation, and with a bath. Each apartment ſhould have its ſeparate entry, and other conveniencies; becauſe perſons in quarantine, thoſe excepted who came paſſengers in the ſame ſhip, ſhould have no communication, but at a diſtance. The conſtruction of theſe buildings muſt be adapted to the climate[5]; but as the number of paſſengers from the Levant is inconſiderable, and the Continent is ſeldom in quarantine, the buildings propoſed need not, at firſt, be extenſive, as they may be enlarged afterwards, if found neceſſary.

[5] The building allotted for paſſengers at Marſeilles, is of a long form, conſiſting of two floors. The ground floor is divided into a number of ſmall chambers, each having its ſeparate door. The entrance to the ſtory above is by one common broad ſtaircaſe, which leads to an airy ſpacious corridor, joining to which, in the manner of a cloiſter, is a row of good apartments, each conſiſting of two rooms, one within the other. The privies are at one end of this corridor.

The furniture of the chambers conſiſts of a table, two or three chairs, and a wooden bedſtead, the paſſengers bringing their own bedding from the ſhip. The rooms I occupied had no fire place. The tavern furniſhed the table linen, &c. and the guardians, of which each ſolitary paſſenger has one appropriated to attend upon him, has the care of bringing the dinner, &c. from the barrier of the tavern, at fixed hours. There was only one gentleman, with his ſuite, in the upper apartment, when I entered the Lazaretto, and his quarantine was half over. I could receive books, or any thing of that kind from him, but the receiving any thing from me, would have ſubjected him to begin his quarantine again. I found the corridor very convenient for walking, but fancy, when the apartments are full, each perſon is reſtricted to his own bounds.

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The captain, or ſuperintendant of the Lazaretto ought to have a houſe, ſituated, if poſſible, in ſuch a manner as to command a view of the whole encloſure. Near which ſhould be a ſmall tavern, for ſupplying the paſſengers, and others, in quarantine. Neither the captain, nor publican, if they have wives or children, ſhould be permitted, on any account, to keep them in the Lazaretto, nor ſhould they be allowed to have any female ſervants.

At the land gate ſhould be a porter's lodge, and near that a parlour, provided with a double barrier, where perſons may be admitted at certain hours, who wiſh to ſpeak with paſſengers, or with others in quarantine. The barrier ſhould be guarded with a wire lattice, to prevent any thing being conveyed from within, and when the paſſengers go thither, they are always to be attended by their guard.

In ſome convenient place, remote from the buildings, there ſhould be a magazine provided for the powder of the ſhips, which ought to be landed, on their arrival, for the ſecurity of the port.

The laſt building requiſite, is a ſmall laundry, intended for waſhing the foul linen of paſſengers, or others, upon their entrance, after it has been carefully ſmoked in the ſmoking chamber. The linen of each paſſenger, or at leaſt of thoſe arriving in different ſhips, ought to be waſhed ſeparately; and none, after the firſt parcel, ſhould be permitted to be waſhed in the laundry, the keys of which ſhould remain with the captain [6].

The above is a general ſketch for a Lazaretto. The regulations eſtabliſhed at Marſeilles for the interior government of the whole, being the reſult of long experience, are the moſt complete

[6] The want of ſomething of this kind appeared to me a defect at Marſeilles. The baggage of paſſengers is ſmoked, at the ſame time with themſelves, in their chambers. But ſome of the baggage, particularly foul linen, brought from aboard, requires more complete ſmoking; after which, it ought to be waſhed.

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I have met with, though, in their application to England, local circumſtances may require ſome variation. The ſame may be ſaid of the regulations regarding the exterior of the Lazaretto; the quarantine of the ſhips; the ſupplying them with proviſions; the unloading the cargo; and the precautions towards the end of the quarantine, before the crew be admitted to prattique[7].

At a little diſtance from the Lazaretto, but cloſe to the water, and in an inſulated ſituation, in reſpect to other quays and buildings, ſhould be the office of health, or prattique houſe; before which ſhould lie the boats belonging to the office. On the face towards the water, a parlour ſhould be contrived, with proper barriers, for the reception of captains of ſhips, when they come to preſent their patents and letters, and to be examined. On one ſide of this, communicating with the office, ſhould be an encloſed quay for the delivery of proviſions, and neceſſaries for the ſhip; and, in order to prevent the boats crews, of different ſhips, from mingling together, the quay may be ſubdivided into two or three diviſions. The proviſions, brought through the office, ſhould be depoſited on the pavement, and thoſe who brought them retiring within the barrier, the crew of the ſhip's boat, who are in waiting, ſhould land and take them away. The ſhip's boat, except on this, or other ſervice expreſsly permitted by the council, ſhould not, under any pretence, come on ſhore, and ſhould be prohibited, under pain of death, communicating with any other boat in their way to or from ſhore, or landing, but at the quay of the office. One or more of the officers of health ſhould be preſent at the delivery of the proviſions; and day-light ſhould always be choſen for this, as well as for all other communication with the ſhips.

[7] In the Traité de la Peſte, ſo often cited in this work, there are ſeveral Memoirs on the ſubject of Lazarettos and Quarantine, in which many abuſes, then prevalent at Marſeilles, are clearly expoſed, and a method of correcting them pointed out. The regulations in uſe at Marſeilles, improved and corrected in the year 1731, were republiſhed there in 1753, under the title of *Memoire ſur le Bureau de la Santé de Marſeille, & ſur les regles qu'on y Obſerve.* Chez Pierre Bey.

Mr. Howard has given a very full account of the regulations at Venice; and has alſo propoſed ſome regulations of his own, which highly merit attention.

CHAP. III.

CHAP. III.

Reception of ſhips with clean patents—The crew are to perform quarantine on board—Length of quarantine—A propoſal to exempt ſailors from being preſſed immediately after quarantine, and to let their private adventures paſs free of duties—What requiſite to be immediately done, when the ſhip has had, or has any ſickneſs on board.

THE Lazaretto being ſuppoſed ready to receive ſhips, the next thing to be conſidered is, the manner of their reception reſpectively, as they may arrive with clean or touched patents; or unhappily under circumſtances which may ſubject them to the ſame treatment as if the patent were foul.

It is the uſual practice, at Marſeilles, that on the arrival of a ſhip from the Levant, or other place ſuſpected, that the office of health, being apprized by an appointed ſignal, immediately ſends off a boat with an officer, who, remaining at a little diſtance from the ſhip, enquires into the ſtate of the crew, and nature of the patent; and then directs her to anchor either near the other ſhips with clean patents, or at ſome diſtance if ſhe has a touched patent, or has loſt people on the paſſage, or has any ſick on board.

If the patent, by the captain's account, be free from all ſuſpicion, the officer deſires him to repair to the prattique houſe, in his own boat; but if there appear cauſe for ſuſpicion, or the hour be too late, his coming is deferred till next morning; and he is commanded at his peril, in the hearing of the crew, to pay ſtrict regard to the rules of quarantine in the mean while. It would be very proper that the captain, before coming into port, or upon entering the channel, ſhould take an opportunity of reading to the crew thoſe articles of the quarantine laws which immediately concern them, that they may be aware of the penalties they incur by diſobedience; and it would be ſtill better if a printed

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abſtract of theſe articles, diveſted of law terms, were to be hung up in ſome conſpicuous part of the ſhip, for the ſailors to con over.

The captain upon landing at the parlour of the prattique houſe, delivers his patent, log-book, and deſpatches, which are received with the uſual precautions of dipping in vinegar, and ſmoking. The captain is then, upon oath, to anſwer to all queſtions relative to the place he came from, to his voyage, the places he may have touched at, or the veſſels he may have had intercourſe with on his paſſage, and to the ſtate of the crew or paſſengers. His examination being taken down by the ſecretary, is read over to him, for correction or confirmation.

The patent being found free from all ſuſpicion, one or more guardians are put on board the boat, and then the captain, taking in ſuch refreſhments as are neceſſary, returns to his ſhip. Should there be time that day, (if not, next morning) the paſſengers with their baggage are landed at the Lazaretto, and the ſhip lands her powder.

Permiſſion for unloading being given by the council of health, lighters either belonging to the Lazaretto, or to private perſons, are left at anchor before the prattique houſe, and the ſhip's boat, with a ſufficient number of hands, takes poſſeſſion of them. The lighters are from this time in quarantine, and, like all other boats in the ſame circumſtances, carry a diſtinguiſhing flag. They are permitted to come and go by day-light only, but may begin to load early in the morning for the ſake of expedition.

When the cargo is diſcharged, theſe lighters, after being properly cleaned, and the ſails dipped in the ſea, under the inſpection of a guardian, are left at anchor, before the prattique houſe, where they remain to be aired two days before the owners are permitted to take them back. If the patent be touched, they ſhould

ſhould perform four days quarantine, and ought alſo to be ſmoked. When private lighters are employed, it will be neceſſary to guard againſt concealed receptacles for ſmuggling ſmall parcels.

The lighter is unloaded at the Lazaretto, by the ſailors and the porters deſtined for airing the cargo; and the goods being delivered, the lighter returns to the ſhip, and the porters tranſport the bales to the place appointed for their reception, by the captain of the Lazaretto. The officers of the ſhip may have acceſs to the quay, or where the goods are arranged, during the time that the veſſel is unloading; but after the cargo has been diſcharged, they are no longer admitted; and it is then the reckoning of the quarantine of the goods as well as the ſhip begins.

The captain, the crew, and ſuch paſſengers as it does not ſuit in point of expence to go into the Lazaretto, perform their quarantine on board; but all ſuſceptible baggage, or ſmall parcels, ſhould be ſent to the Lazaretto; the perſons on board, retaining only neceſſary linen and clothes, and theſe ought to be fumigated and waſhed on board, before the ſhip be admitted to prattique. It is the duty of the guardians on board to ſee this regulation ſtrictly executed, and to take care, towards the end of the quarantine, that the ſhip within be every where cleaned and ſmoked. Laſt of all, before the crew are ſet at liberty, ſtrict ſearch ſhould be made by proper inſpectors, to prevent illicit parcels from being concealed.

"If there has been no ſickneſs in the ſhip (ſays Dr. Mead) I "ſee no reaſon why the men ſhould perform quarantine. In- "ſtead of this, they may be waſhed and their clothes aired in "the Lazaretto, as goods, for one week[1]."

[1] Mead on the Plague, p. 77.

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It ſeems to have been the Doctor's opinion, that men as well as goods were to perform quarantine in the Lazaretto, and he aſſigns a reaſon why a quarantine for perſons, on board the ſhip, is inſufficient[2]. The reaſon would ſtand good if ſickneſs actually prevailed on board, and the ſick were not ſeparated from the ſound, it would be like the practice at London formerly of ſhutting up the ſound with the ſick in infected houſes. But if it was meant, in general, that the crew were to perform quarantine in the Lazaretto, the ſhip in that caſe would have been left without hands to take care of her. It is neceſſary the crew ſhould unload the veſſel; when that is done, being then ſeparated from the cargo, the ſhip becomes a proper Lazaretto for them, and, by performing quarantine there, they are not only of ſervice in cleaning and taking care of the veſſel, but their remaining in health is ſome ſecurity for the purification being effectually performed. Should any one on board happen to fall ſick, with ſuſpicious ſymptoms, he is immediately tranſported to the infirmary in the Lazaretto, and if the diſtemper proves to be the plague, it will of courſe occaſion an alteration in the quarantine, both of the ſhip and cargo.

That it is unneceſſary the crew ſhould perform quarantine, where there has been no ſickneſs in the ſhip, is inconſiſtent with all practice. The crew, before opening the hatchways of the hold, are in the ſame circumſtances with paſſengers, and their having remained ſound all the voyage, might, no doubt, equally intitle them to a ſhort quarantine in the Lazaretto[3]. But neither paſſengers nor mariners ſhould be admitted to prattique, without a previous quarantine; becauſe it is a hundred to one, though the ſhip has not begun to unload, that the hold has been opened to take out trunks or baggage, which may have re-

[2] Mead on the Plague, p. 72.

[3] Formerly, at Merſeilles, Paſſengers, with clean patents, performed a quarantine of five or ſix days only; but at preſent, it is prolonged to twenty; and for paſſengers from Conſtantinople, to twenty-eight. Traité de la Peſte, p. ii. p. 178.

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mained untouched from the time of leaving the port, till the arrival in England. That the ſailors, after unloading the goods, ſhould be obliged to a quarantine, has never been doubted, and under the regulations mentioned above, the ſhip appears to be the beſt place for performing it in.

An exception, however, to this, may ariſe in war time, when the compliment of men is far beyond what is required to unload and cleanſe the veſſel. In ſuch caſe, the ſupernumerary men, before beginning to work on the goods, might be admitted to the Lazaretto, at the ſame time with the paſſengers, and ſubjected to the ſame quarantine. I beg leave to add here, that if the ſailors, in theſe ſhips, were invariably to be exempt from being preſſed, for one or two months, after the date of a certificate, from the health office, of having duly performed their quarantine, it would be a ſtrong motive to regular behaviour, and might prevent dangerous conſequences.

I remember hearing an inſtance of the crew of a Turkey ſhip, in quarantine in Standgate Creek, riſing in mutiny, confining their captain, arming themſelves, and making their eſcape on ſhore, to avoid being preſſed by a ſloop of war that lay near. The commander of the ſloop had, very imprudently, come ſeveral times in his boat, and intimated his intention of preſſing the men as ſoon as the quarantine ſhould be over. The fugitives were purſued by the ſloop's people, but defended themſelves in a running fight, and made their retreat good. The conſequences of this adventure, on one ſuppoſition, might have been dreadful; hundreds of houſes on the road to Wapping ſtood ready to give them refuge. The officer of the ſloop was ſeverely reprimanded; but a ſtanding law would be the beſt ſecurity againſt the like accidents in future.

Another circumſtance relative to the ſailors and petty officers, which merits conſideration, regards their trifling adventures of

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BOOK V.

ſuſceptible articles, which either bear a high duty or are prohibited. Were thoſe, upon condition of being fairly delivered into the Lazaretto, to be exempted from all duties, the loſs to the revenue would be very inconſiderable; and one great inducement to concealment and ſmuggling would be removed. The plague was ſuppoſed to have been introduced into Marſeilles, in ſmall parcels of ſmuggled goods, belonging to the ſailors.

The length of the ſhip's quarantine muſt depend on circumſtances, but in general it is ten days leſs than that of the cargo. At Marſeilles ſhips from Conſtantinople and Barbary, are ſubject to a longer quarantine than thoſe from Syria, on account of the frequency of the plague at Conſtantinople, and the ſhortneſs of the run from Algiers or Tunis. The plague in Syria returns at long intervals. A patent, in 1759, would have expreſſed Aleppo being free fourteen years; and one, in 1783, would have certified an interval of twenty years. Ships coming directly from Syria, and which had before touched at no other part of the Levant, ought therefore to ſtand in a different light from ſhips coming from Conſtantinople, or Smyrna; nevertheleſs, conſidering the commerce, unguardedly in this reſpect, carried on between the numerous ports in the Levant, the ſhips from Syria ought not to be entirely exempt from quarantine, though they have a juſt plea for its being abridged[4]. The council of health will judge from circumſtances how far the quarantine may be ſhortened;

[4] Before the Quarantine Act, in 1754, a ſhip from Turkey, with a clean patent, landed her paſſengers at the firſt port in the Channel, if they deſired it. The paſſengers indeed had their ſeparate patents, which were inſpected by the cuſtom-houſe officers before they were permitted to land. But the ſhip poſſibly had been at different ports, and her patents, as to the time of the places being free, were of different tenours. Theſe were not ſubmitted to the cuſtom-houſe officers, who concerned themſelves only with the patents of the paſſengers about to land; they were not acquainted with what had happened on the voyage, nor with the preſent ſtate of the crew. The ſhip laying to, after having received the pilot on board, proceeded to her port, and the paſſengers went on ſhore in the pilot's boat. I myſelf once landed in this manner at Dover.

and that implies the ſhip having no prattique till her patent and other papers have been ſubmitted to their inſpection. CHAP III.

If a ſhip with a clean patent has loſt any of her men on the paſſage, or if ſickneſs of any kind actually exiſts on board, ſhe is then, without regard to her patent, to be deemed ſuſpected, until ſuch time as enquiry ſhall have been made into circumſtances. Should it appear from the accounts of the captain, and declaration of the ſurgeon, that the mortality was occaſioned by chronical, or other maladies well known, the ſuſpicion will of courſe be leſſened; but if the perſons appear to have died after a few days illneſs, notwithſtanding no eruptions were perceived, nor ambiguous ſymptoms can be collected from the ſurgeon's journal, the caſe ought to be held more ſuſpicious. As to ſickneſs that may happen to exiſt in the ſhip, the ſurgeon ſhould prepare a ſtate of the caſes to be delivered by himſelf at the prattique houſe, where the ſurgeon of the Lazaretto ſhould attend in order to confer with him. If the diſeaſe appear to be ſcorbutic, ordinary, or not contagious, the ſick may be left in the ſhip; but if attended with any equivocal ſymptoms, the ſick ought immediately to be tranſported to the infirmary allotted for ſuſpected patents, and put under the care of the ſurgeon of the Lazaretto.

The paſſengers on board of the ſhip ſhould be fumigated on their reception, and afterwards lodged in the quarter of touched patents. Their foul linen ſhould be fumigated and waſhed, and their clean linen, books, and other things in their trunks, ſhould be fumigated in the ſmoking room, before they are carried into the lodging. The length of their quarantine will depend on what happens in the courſe of unloading the ſhip. If all proceeds favourably, and the diſorder of the ſuſpected patents turns out to be not peſtilential, the paſſengers may be removed into the apartments for clean patents to finiſh their quarantine. On the contrary, ſhould the diſorder prove to be the plague, the caſe is then different, and ſome other regulations become requiſite.

CHAP. IV.

Reception of a ſhip with a touched patent—Precautions in unloading her cargo,

A SHIP arriving with a touched patent, the crew being all ſound, goes through much the ſame forms on her reception, as a ſhip with a clean one, only that a guard boat is appointed to watch her in the night. But there is a difference in the precautions taken in landing the cargo.

If the ſhip has loſt any men on the paſſage, there will be much more cauſe for ſuſpicion; and information may be extracted from a careful examination of the captain, the ſurgeon, or other officers ſeparately. Dates are material here. How ſoon the diſtemper appeared after leaving the port? Had the hatchways of the hold been opened? Had there been any communication with Turkiſh veſſels at ſea[1], or with European veſſels coming from other ports of the Levant? How ſoon thoſe taken ill died? Within what time one fell ill after the other? If the clothes and bedding had been deſtroyed? and the like queſtions. Little ſtreſs ſhould be laid on the abſence of eruptions, or external ſigns of the plague, where other circumſtances concur to raiſe ſuſpicion.

Should it appear on the whole moſt probable that the diſtemper of which thoſe on the paſſage had died was an ordinary

[1] Being a paſſenger in a French veſſel, I was once induced, in the Archipelago, to go on board a Turkiſh galley to pay a viſit to the captain at his requeſt, being firſt aſſured that there was no ſickneſs on board. Two days after, on our arrival at one of the iſlands, where we found the plague then raging, we were informed that this very galley, which had got into port before us, had, in the courſe of a ſhort cruiſe, loſt twenty or thirty men in the plague; and had the day before landed as many more, all infected. Our ſhip had come from a place long free from all ſuſpicion; had therefore any thing happened on board, after this intercourſe with the galley, a probable cauſe might have been aſſigned: the hatchways having remained ſhut, the cargo would have ſtood unimpeached.

one, and that the crew at preſent remain ſound; the following precautions ſhould nevertheleſs be obſerved. Firſt of all, before opening the hatchways of the hold, the ſhip, between decks, ſhould be cleared, and well ſmoked[2]. The cheſts of the ſeamen ſhould be opened upon deck, and their linen, or whatever is ſuſceptible of infection, taken out; all which, together with their hammocks, ſhould be ſuſpended between decks, and the fumigation repeated. The linen is then to be waſhed, and the whole expoſed for ſome days to the open air.

The ſhip being cleanſed and ſmoked, permiſſion may be given to open the hold, and to take out a certain number of bales, the moſt ſuſceptible of infection, to be ſent to the Lazaretto, in order to perform the firſt *ſereine* or airing. Theſe bales, being immediately opened, ſhould be expoſed to the air for three or four days, and in that time frequently turned and handled by the porters. At the expiration of this firſt ſereine, a ſecond parcel of bales ſhould be ſent to the Lazaretto, to perform, in like manner, a *ſereine* of three days. No accidents intervening, either in the ſhip or the Lazaretto, ſhe may be permitted to unload without further interruption.

The paſſengers ſhould perform a quarantine of twenty-five days, reckoning the day of entrance and the day of coming out, as two of the number. All ſuſceptible baggage ſhould be ſmoked a ſecond time in the ſmoking room, three days before the expiration of their quarantine; and they themſelves, with their immediate wearing apparel, ſhould be fumigated in their chamber.

The ſhips quarantine, at Marſeilles, commences after the laſt parcel is landed, and is fixed at twenty-five days; ſhips from Conſtantinople perform five days more. The cargo of ſhips from Conſtantinople performs a quarantine of forty days; from Smyrna, of thirty-five. In caſe of peſtilential accidents in the

[2] See Lind's Eſſay on Fevers, &c. p. 226.

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interim, on board, or in the Lazaretto, the quarantine re-commences. In regard to paſſengers, this laſt regulationmay admit of modification; but an accident happening to any of the paſſengers, agreeably to general uſage, affects the quarantine of both ſhip and cargo.

Theſe terms of quarantine have all along referred to ſhips laden with goods liable to infection: ſhips whoſe cargoes are deemed not ſuſceptible, as grain, fruit, wine, &c.[3] ſhould be ſubject to a much ſhorter quarantine. But they ought not to be admitted without precautions; for though the merchandiſe may not be ſuſceptible, the materials employed for package may, and for that reaſon they ought to be ſtripped off, and left in the Lazaretto. Caſks of oil ſhould be dipped in the ſea, and other caſks expoſed to the air; but cordage and ſacks ſhould be changed.

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Manner of proceeding, when the plague has ſhown itſelf in the courſe of the voyage—When ſickneſs of a ſuſpicious kind, actually exiſts in the ſhip—When that ſickneſs proves to be the plague—When the porters in the Lazaretto are infected—Propoſal for burning an infected ſhip, with her cargo, conſidered—To fumigate the merchandiſe in the Lazaretto, propoſed—The purification of merchandiſe, by ventilation, not equally effected in all ſeaſons.

WHERE it appears, from the examination of the ſurgeon or officers, that the perſons who may have died on the paſſage, actually died of the plague; or where any ſickneſs, attended with ſuſpicious ſymptoms, exiſts in the ſhip, ſtricter precautions become neceſſary.

[3] See before, book iv. c. 3.

A ſhip,

A ſhip, with perſons on board manifeſtly infected, will not attempt coming to the Lazaretto; a particular ſtation being appointed for veſſels under ſuch circumſtances[1]: but the caſes ſuppoſed above, may happen not only to ſhips arriving with touched, but even to thoſe with clean patents, and proviſion ſhould therefore be made for them.

If the mortality happened early in the voyage, and ſeveral weeks have elapſed without further conſequence, there will be leſs to apprehend on the part of the crew, and the ſhip may be permitted to unload, uſing due precautions.

She ought, in the firſt place, to moor at a diſtance from other veſſels; to be guarded (beſides the two guardians on board) by a guard-boat without; and when her boat comes on ſhore for proviſions, boats of other ſhips ſhould not be allowed to approach the place where the proviſions are delivered.

The paſſengers ought to be immediately landed, carrying along with them only ſome wearing apparel; the remainder of their baggage, bedding excepted, being left on board. Upon landing at the Lazaretto, they ſhould be carried firſt to the tepid bath, and accommodated with bathing clothes, their own clothes and linen, in the mean while, being ſuſpended in the fumigating chamber. From the bath, they are to be conducted to their apartment, in the quarter allotted for touched patents, and thither their clothes ſhould be brought, after fumigation.

The ſick are next to be tranſported to the infirmary deſtined for the ſuſpected. Where a gown and bed-linen ſhould be prepared for them, till their own clothes be purified, by waſhing and fumigation.

[1] By the Quarantine Act, when the plague appears on board of a ſhip to the northward of Cape Finiſterre, ſhe is, with all ſpeed, to proceed to St. Helen's Pool.

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The ſhip is then to be cleaned and ſmoked between decks, in the manner before deſcribed: the powder being firſt landed. The trunks, &c. of the paſſengers, if not in the hold, ſhould be ſmoked with the ſhip, and then ſent to the Lazaretto, to be opened, fumigated, and aired more completely.

The ſmoking of the ſhip ſhould be twice performed; the ſailors ſhould be ſupplied with ſoap and freſh water, for waſhing; and ſhould be made to air their hammocks and bedding, daily, if the weather permits.

If no other perſon of the crew falls ſick in the courſe of a week, and no ſymptoms of infection appear in the ſuſpected ſick, put on ſhore at the Lazaretto, permiſſion may be granted for opening the hold, and taking out a parcel of bales, which are to paſs a *ſereine* of five days. Two other parcels of bales, in ſucceſſion, are each to perform a *ſereine* of three days; after which, the veſſel may be allowed to diſcharge her cargo.

In this manner the ſhip would remain eight days before the firſt *ſereine*, eleven during the *ſereines*, and twenty after landing her cargo; making in all, including the time taken up in unloading, a quarantine of between forty and fifty days.

Should the diſeaſe, of the ſick, ſent to the Lazaretto, really be the plague, the diſcovery will be made before the expiration of the week, and will of courſe prevent further proceedings, in reſpect to the cargo; for it ought to be an invariable rule, in ſuch a caſe, not to permit the hold to be opened, till the ſtate of the crew on board be aſcertained.

In this interval the ſhip, between decks, ſhould be carefully aired and ſmoked; and at the end of a fortnight, no more ſickneſs intervening, leave may be given to begin the *ſereines*, as before directed.

But

But ſhould it ſo happen, that any of the porters, at work on the cargo in the Lazaretto, contract the infection, either during the *fereines*, or after the whole cargo is diſcharged, the management muſt be different, according to circumſtances.

If the infection ſhould diſcover itſelf during the *fereines*, an immediate ſtop ſhould be put to unloading, the hold ſhould be well ſecured, and, after a fortnight's delay, the crew remaining well, the veſſel might be ſent under convoy to St. Helen's Pool.

But if the goods be already landed, it may perhaps be better to attempt their expurgation in the Lazaretto, than to reſhip them, unleſs there were a proper foul Lazaretto at St. Helen's Pool.

The paſſengers who were landed at the ſame time with the ſick, ſhould not be ſet at liberty till three days after the laſt *fereine*; but in caſe of the ſuppoſed interruption, by new accidents, it does not ſeem requiſite that their quarantine, conſidering how long they have been ſeparated from the ſhip and cargo, ſhould be prolonged more than thirty days; their baggage being always underſtood to be ſtrictly purified.

In attempting the expurgation of the goods already landed, and which on the firſt alarm will have been removed into the foul encloſure, the porters, after a ſpace of eight days, during which they ſhould frequently waſh and fumigate their clothes, and lodgings, may cautiouſly return to work on the goods. Firſt on the bales that have paſſed the *fereines*, and afterwards on ſuch as may not have been opened. But if any freſh accidents of infection happen among the porters, the unopened bales had better remain in that ſtate, ſhould it be the ſummer ſeaſon, till the winter. It is not, however, conceived, ſuppoſing the bales to be infected, that they would be purified by that time, any more than bales remaining in a ſhip's hold; but the cold ſeaſon being

leſs

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leſs favourable to contagion, the porters would be expoſed to leſs riſk. In all the accounts I have ſeen of the plagues at London, they always declined rapidly in November and December.

It was the opinion of Doctor Mead, that goods which ſhow themſelves to be contagious, from their infecting thoſe who handle them, ſhould at once be deſtroyed[2]. In another place he goes ſtill farther, "If a ſhip comes from any place where the "plague raged at the time of the ſhip's departure from it, with "more than uſual violence, it will be the ſecureſt method to "burn all the goods, and even the ſhip."

The raging with more than uſual violence would ſeem to imply, that the ſame method was not neceſſary, if the plague, at the time of the ſhip's departure, exiſted only in a moderate degree, and that, under ſuch circumſtances, an attempt might be made to purify the goods, inſtead of condemning the whole cargo to the flames. I am not certain whether this was Dr. Mead's opinion, but the legiſlature, without regard to the diſtemper's raging more or leſs, has thought proper to exclude every ſhip from Britiſh ports, which does not bring a patent, declaring the place where ſhe loaded, abſolutely free even from ſuſpicion of the plague, unleſs ſhe and the merchandiſe have performed a quarantine in one of the foreign Lazarettos.

By the 13th clauſe in the expired act, made in the ſeventh year of George the Firſt, his Majeſty, in council, was expreſsly empowered, when the plague exiſted in any foreign country, to order ſhips coming from infected places, or laden with goods from ſuch places, or having on board any infected perſon, to be burnt, with the whole of their cargo, or ſuch part of it as might be judged neceſſary[3]. But in both the Quarantine Acts of George the

[2] Mead on the Plague, p. 80.

[3] On the 16th of June, 1721, the following meſſage was delivered to the Commons from his Majeſty—'His Majeſty being informed, that two ſhips, called the Briſtol Merchant,

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the Second, this clauſe was entirely left out; and if once it be admitted, that infected goods may, by certain means, be effectually purified, ſo ſevere a meaſure, as that of burning the ſhip and cargo, need only be recurred to under extraordinary circumſtances.

The preſent ſyſtem of quarantine proceeds on a ſuppoſition, that infected goods are capable of being purified, in a certain time, by ventilation. If this be not ſuppoſed, quarantine is no more than a very undeciſive trial whether the goods be contagious; I ſay undeciſive, becauſe though the goods be really contagious, thoſe employed in unloading or opening them may poſſibly eſcape unhurt, in like manner as it ſometimes happens, that of ſeveral perſons frequenting the chamber of a patient in the plague, no one is infected. It is certainly, however, a ſtrong preſumption either of the goods being not tainted, or of the ſtate of the air being not favourable to contagion, when thoſe employed in handling them, receive no harm. But, beſides this, it is the common opinion, that the peſtiferous effluvia, conveyed in ſubſtances cloſe packed up, when opened, either evaporate during a long expoſure to the air, or are otherwiſe deſtroyed by its agency. In conſequence of which, thoſe who aſſiſt at the firſt opening of the goods, are

'chant, and Turkey Merchant (now lying under quarantine) did arrive from Cyprus, 'and other parts of Turkey, infected with the plague, and have cotton, wool, and 'other goods on board, which are dangerous to ſpread the infection; and conceiv-'ing it neceſſary for the health of his ſubjects, that the ſaid ſhips, and their ladings, 'ſhould be burnt and deſtroyed, and that a reaſonable ſatisfaction be given to the 'maſters, owners, and freighters, hath, by advice of his Privy Council, cauſed the 'value thereof to be computed by his Majeſty's officers, and ordered thoſe compu-'tations to be laid before the Houſe of Commons, that proviſion may be made for 'ſatisfying the ſame.'

On the 22d of June, a ſum not exceeding 23935l. to be applied to the ſatisfaction of the maſters, owners, &c. of the two ſhips, which are intended to be burnt and deſtroyed, for the preſervation of his Majeſty's ſubjects againſt infection, was granted, in a grand Committee of Supply.

con-

BOOK V. conſidered as being in much more danger of infection, than thoſe who repack them, after an airing of forty or fifty days.

Quarantine therefore is not merely an experiment to determine whether the merchandiſe retain infection; but the ventilation, during the quarantine, is the means of purifying them, if they happen to be infectious. The terms eſtabliſhed for ventilation may appear to be unneceſſarily long; but it has very juſtly been remarked by Doctor Mead, "as we do not know how "much time preciſely is neceſſary to purge the interſtices of "ſpongy ſubſtances from infectious matter by freſh air, the cau-"tion cannot be too great in this point[4]."

It is much to be wiſhed, that means could be deviſed for the expurgation of merchandiſe, more expeditiouſly than by ſimple expoſure

[4] Mead on the Plague, p. 78. See alſo Muratori.

"L'intera quarantena è di 40 di, (ſays Muratori) dal che venne il ſuo nome, e tanto "ſi ſuol richiedere negli urgenti ſoſpetti di peſte. Nulladimeno, a me ſembra meri-"tevole di molte rifleſſione, la fondatiſſima ſentenza di Lodovico Settala, e del P. Mau-"rizio da Tolone, dell' ultimo dè quali rapporterò i ſentimenti, e la ragione. La "pratica, dice egli, di 20 & piu anni mi da' animo di francamente aſſerire eſſere baſtevoli "20 giorni de quarantena, benche l'uſo ſia intradotto di 40. certo è, Che chi avra ma-"neggiato robe infette, o attratta aria appeſtata, in guiſa che gli ſi ſia attaccato il male, "proverà prima che paſſino 15 di, qualche grave accidente, comme di febbre, &c. "Quindi è, che ſe qualche perſona ſoſpettà ſi ſara', nell'entrare in quarantena, lavata "ben con aceto, mutando le veſti, e inſieme profumando tutte le altre ſuppellettili, nè "avrà ſentito ombra, o apparenza di male, ſi puo, paſſato il venteſimo giorno, licen-"ziare come ſicura di ogni infezione; avendo io più volte oſſervato, non eſſervi in-"fetto, che prima dè 15, evidentemente non ſi conoſca, o abbia paſſato quel termine "con ſalute, e poi ſi ſia ſcoperto appeſtato. Vero è che ſi traſcuraſſero le cautele "ſuddette, & le diligenze preſcritte ne' Lazzaretti, potrebbe la peſte divampare non "ſolo dopo i 30, ma anche dopo i 40 giorni—Avverto, che la mutazion dell' aria "fatta da luogo infetto in altro ſano, è cagione che la malignità del morbo ſi dia "piu preſto a conoſcere, che ſi foſſe fermato nel primo ... Neſſuno adduce una "ragion ſoda e vera, per cui ſi aſſegnino 40 giorni alla purga ſuddetta. Ma poſto per-"vero, che la peſtifera qualità del male non può ſtare piu di 15 di'a ſcoprirſi, hanno "da baſtar 20 giorni. E per le robe, quantunque infettiſſime, ſi purgano queſte

expoſure to the air; and perhaps fumigation, which, on other occaſions, is much practiſed abroad in times of peſtilence, might be attempted here with ſome proſpect of ſucceſs. CHAP. V.

The halls or warehouſes for airing the goods, though open to all quarters, muſt nevertheleſs, in England, be provided with occaſional defences againſt the weather, ſo contrived as, when neceſſary, to ſhut up the halls on all ſides, ſufficiently cloſe for fumigation. Were the moſt ſuſpected goods to be thus ſmoked once or twice, before the porters returned to work upon them, they would reſume their labour with more confidence, and have

" in 24 hore, a ſegno che ſe potranno dipoi maneggiare con tutta ſicurezza." Muratori, lib. i. c. 12.

The complete quarantine (ſays Muratori) comprehends a term of forty days, from which circumſtance it derives its name; and in all extraordinary apprehenſions of the plague, the performance of it is ſtrictly required. Nevertheleſs, the well-founded opinion of Lodovico Settala, and father Maurizio of Toulon, appears to me highly deſerving of attention; and I ſhall here give an account of the opinion and reaſoning of the latter. The experience (ſays father Maurizio) of more than twenty years, encourages me to aſſert boldly, that twenty days of quarantine are ſufficient, though cuſtom has introduced the practice of forty. It is certain, that whoever may have caught the plague, by handling things infected, or breathing peſtiferous air, the effects of the contagion will diſcover themſelves in ſome alarming ſymptoms, as fever, &c. within fifteen days. Hence it is, that if any ſuſpected perſon, upon entrance into quarantine, has changed his apparel, been well waſhed with vinegar, and, together with the furniture he brings with him, been fumigated, without having been ſenſible of, or having had the appearance of any infection, he may be diſmiſſed as free from any infection, at the end of twenty days; I having obſerved frequently, that the infection always diſcovered itſelf plainly before the expiration of fifteen days, and never later than that period. Indeed, if the precautions and rules preſcribed in the Lazaretto, are neglected, or careleſsly obſerved, the plague may diſcover itſelf, not only after thirty, but even forty days. I muſt obſerve, that the change of air from a place infected to one that is healthy, cauſes the malignity of the diſeaſe to diſcover itſelf ſooner than if the perſon had remained in the firſt place. No one has produced a true and ſolid reaſon why forty days of quarantine ſhould be neceſſary for expurgation. But taking it for granted, that infection cannot remain latent above fifteen days, twenty days quarantine is ſufficient for perſons. As to goods and other things, however highly infected, their expurgation may be completed in twenty-four hours, inſomuch that they may be handled with perfect ſafety.

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a better chance of eſcaping. Contrivances alſo might be made for conveying ſmoke, by a pipe, to particular bales, or parcels of goods; which being thus partially fumigated, might be handled with leſs danger, and moved to a place better fitted for thorough ſmoking. Such goods as are liable to be injured by ſmoke muſt be kept apart; but materials might poſſibly be found, the ſmoke of which would be harmleſs, in reſpect to moſt of the goods ſuſceptible of infection.

Fumigation of the halls, in the manner now propoſed, is not, ſo far as I know, practiſed in any of the foreign Lazarettos; though the ſmoking infected houſes and furniture is a noted practice on the Continent. The Italian and French writers have ſaid enough to encourage the attempt of transferring the practice of ſmoking, with a more extenſive application to Lazarettos; and, the experience of a later writer, in other contagions, ſeems to confirm what had before been aſſerted from ancient experience, of the benefit of fire and ſmoke, in eradicating peſtilential contagion from infected ſubſtances.

"Wherever infection lurks, and in whatever materials it is "harboured, the admiſſion of the pureſt air, or the moſt perfect "ventilation, will often not avail, either in removing or abating "its activity. It now gives me the higheſt ſatisfaction to affirm, "that I ſeldom or never knew a proper application of fire and "ſmoke to be unſucceſsful, in producing the happy conſequence "of effectually purifying all tainted places, materials, and ſub-"ſtances[6].

"It is not to be doubted but that, excepting the true plague, "there has been an infection fully as peſtilential, and as "mortal, in ſome ſhips, as in any other place whatever; yet I "never heard of any ſhip, which, after having been carefully "and properly ſmoked, did not immediately become healthy.

[6] Lind's Diſſertation on Fevers and Infection, p. 225.

"And

" And if afterwards they turned ſickly, it was eaſy to trace that " ſickneſs from other infected ſhips, jails, and the like places."

After deſcribing the mode of ſmoking ſhips, he adds, " From " the known and experienced efficacy of theſe proceſſes, it ap- " pears that fire and ſmoke are the moſt powerful agents for " annihilating infection; and it may be preſumed even the plague " itſelf. I have known in ſeveral ſhips, where there are the " faireſt opportunities of trying things of this nature, that the " contagion of the ſmall-pox has been entirely ſtopped by means " of wood fires, ſprinkled with brimſtone, kept burning and " cloſely confined in the infected place[7].

" I ſhall laſtly deliver my ſentiments with regard to the pu- " rification of goods, moveables, clothes, &c. which are ſuſ- " pected to harbour contagion; and I cannot but take notice, that " the uſual cuſtom of only unpacking and expoſing ſuch mate- " rials to the open air, is, in many inſtances, inſufficient to de- " ſtroy the latent ſeeds of the diſeaſe[8]."

In favour of a practice which I have had few opportunities of ſeeing carried to any extent, I have produced the reſpectable authority of Dr. Lind, who ſpeaks from long and wide experience, in various contagions; and I perfectly concur with him in thinking it may reaſonably be preſumed the ſame means would prove ſucceſsful in peſtilential contagion: indeed the experience of other nations ſhows it to be more than merely a preſumption[9].

As the entire cargo of a ſhip can hardly be ſuppoſed to be infected, and experience has ſhown that infected goods may be purified by time and ventilation, the neceſſity of deſtroying a

[7] Lind's Diſſertation on Fevers and Infection, p. 227. 229, 231.

[8] Ibid. p. 235.

[9] Another opportunity will occur of entering more at large upon the ſubject of fumigation.

BOOK V. cargo will rarely occur. The circumſtances which may bring it under deliberation ſeem to be the following.

Should the infection repeatedly ſhow itſelf upon opening or working on the bales already landed, notwithſtanding the precautions recommended to the porters of the Lazaretto have been duly obſerved; or ſhould the infection ſpread among the crew on board, notwithſtanding the ſpeedy removal of the ſick, the ſhutting up of the hold, ſmoking the ſhip, and the intermiſſions of labour before deſcribed; there will be reaſon for apprehending, either that the ſhip and cargo are infected in an extraordinary degree, or that the conſtitution of the air is favourable to contagion.

This peculiar conſtitution has been already mentioned frequently; and I have endeavoured to ſhow its concurrence to be ſo indiſpenſably neceſſary to ſpread the infection, that in Turkey, when it happens to be abſent, intercourſe with infected places is kept up without material conſequence [10]. Its rare recurrence in England is one reaſon, amongſt others, aſſigned for that country having ſo long eſcaped the plague, notwithſtanding its extenſive commerce with the Levant. But, in the viciſſitude of aerial conſtitutions, that the true peſtilential one is entitled to a place in the Britiſh climate, is ſufficiently confirmed by experience.

In the caſes now ſuppoſed, if the part of the cargo remaining on board conſiſts of cotton, or of ſuſceptible goods of ſmall value, which would hardly defray the expences of a long quarantine, the moſt adviſable meaſure would be to deſtroy the veſſel with the cargo, and to oblige the crew to perform a quarantine of thirty days, in the Lazaretto, after the deſtruction of the ſhip. But if the cargo conſiſts of ſilk, or be of ſufficient value, to bear the expence of delay, ſome more trials might be made on the goods, before condemning them abſolutely.

[10] See before, book iii. chap. 6.

In

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In this view, after an intermiſſion of labour for fifteen days, in order to aſcertain the ſtate of the crew, the hold might again be opened, and a new parcel of bales be landed. Should theſe diſcover no ſigns of infection in the Lazaretto, the remainder of the cargo might ſafely be diſcharged. But in caſe of new accidents intervening, either on board the ſhip, or in the Lazaretto, a ſtop ſhould be put to further proceedings, till a more favourable ſeaſon.

That ſome kinds of weather may be more favourable than others, for the expurgation of infected goods, is very probable[11]; but it remains to be determined, by experience, whether, in a peſtilential conſtitution of the air, the ſame goods require much longer time than uſual, to be diveſted of their contagious property.

[11] Muratori, on this ſubject, cites the authority of P. Maurizio da Tolone Cappucino, who ſpeaks with much confidence, "Spirando Scirocco, o aria umida e "piovoſa, avvertano che l'infezion della robe, anche eſpoſte all' aria, non ſi leva, "ma ſi fomenta, facendoſi talvolta la quarantena intera ſenza purgarſi. Si deve "anche temere d'un' inconveniente nel verno, che non ſuole accadere la ſtate, cio "è ch' in tempo freddo, o ſpirando la tramontana, ſi naſcondono & ſi concentrano "ne i panni, & nelle robe gli ſpiriti peſtilenziali, i quali, venuto poi il caldo, fanno "ſtrage orribile. Ma in qualunque tempo che corra, ſe ſaranno ben fatti i profumi "alle robe, e verrà ben cuſtodita la perſona, & governata coll' aceto, & colla muta-"zione de i panni, la quarantena ſarra mezzo ſicuro per accerta ſi ſe la perſona abbia "condotta ſeco l'infezione, e per liberarnela ancora." Muratori, lib. i. c. 12.

When the ſouth-eaſt wind blows, or the weather is moiſt and rainy, it is obſerved, that the infection in goods, though they be expoſed to the air, is rather fomented than diſſipated, ſo that thecomplete quarantine ſometimes may be performed, and the goods remain not purified. An inconvenience may alſo be apprehended in the winter, which does not uſually happen in the ſummer, namely, that in cold weather, or when the north wind blows, the peſtilential miaſmata are concentrated, and lurk in the cloaths and other goods, till ſet looſe by the return of heat, when they cauſe terrible devaſtation. But, whatever the weather may be, if the fumigation be properly applied to the goods, and moreover the change of apparel, and waſhing with vinegar be properly managed with reſpect to perſons, the quarantine will be a ſure method of aſcertaining whether the perſon has brought the infection along with him; as alſo of purifying him, if infected.

This

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This laſt circumſtance remaining, as I conceive, doubtful, it may be proper, during a ſuſpected ſeaſon, to double the quarantine of a ſhip, whoſe cargo had given proof of infection; and to permit no ſhip, arriving from a place where the plague had ſhown itſelf after her departure, to diſcharge her cargo in the months of July, Auguſt, or September.

Such multiplied reſtraints and delays muſt inevitably fall heavy on trade, and prove highly diſtreſſing to the merchants. But the circumſtances requiring ſuch extreme rigour, will very ſeldom occur; and if by ſuch delays, the ſhip and cargo can be ultimately ſaved, without endangering the public ſafety, it ſurely is preferable to deſtroying the whole property by fire or water.

As to the inconveniences to which the merchant is ſubject, in ſuch unfortunate times, it ſhould be recollected that this temporary and partial interruption of commerce is intended to prevent a much more extenſive evil; for ſhould the plague once pervade the country, a ceſſation of trade and commerce, internal as well as external, muſt ſoon follow. In the mean while, if the individual has any right to indemnification, when the deſtruction of his private property is judged a neceſſary meaſure; the equity of the legiſlature will not leave the merchant, to whom no blame is imputed, without ſome compenſation for what he may ſuffer in conſequence of the extraordinary length of quarantine, a meaſure equally intended for the public ſafety [12].

It

[12] Though the power given by the expired act, in the 7th of George the Firſt, to order an infected ſhip, with the whole, or part of her cargo, to be burnt, is not expreſsly enacted by the Quarantine Act now in force; yet, from the following inſtance, it would ſeem as if a like power were implied in the general power given to his Majeſty, to iſſue ſuch orders concerning quarantine, and the prevention of infection, as he may judge neceſſary.

In the year 1754, ſoon after the Quarantine Act, 26th George the Second, took place, the ſloop Fawey, Iſaac Clemens, commander, from Algiers, was ſunk at ſea, by order of council. Ingram's Hiſtorical Account, p. 197.

The

It may perhaps be ſaid, that without entering into ſo many intricate diſtinctions, a preferable way would be at once to interdict all intercourſe with ſuſpected places; and to permit no ſhip whatever, having the plague on board, to enter a Britiſh port.

Acts of parliament to the firſt purpoſe were made in 1722, in 1728, and in 1733; but the power granted to his Majeſty of prohibiting commerce, was always cautiouſly limited to the ſpace of twelve months. For infected ſhips, one port is allotted by law, all others being ſhut to them.

The proviſion made by the act, 26th of George the Second, for veſſels on board of which the plague may diſcover itſelf to the northward of Cape Finiſterre, is worthy of the juſtice, as well as of the humanity of the nation; both being intereſted in offering a refuge for them, under whatever circumſtances they may happen to arrive. Imagination can hardly draw a picture of more dreadful diſtreſs, than that of a ſhip's crew at ſea afflicted with the plague. In ſuch circumſtances, to drive them in a hoſtile manner from the coaſt where they are naturally entitled to find ſhelter, would ſeem to betray the ſelfiſh ſpirit of barbarous

The hiſtory of this tranſaction appears very ſingular. The veſſel departed from Algiers with a clean patent; had prattique at Gibraltar, after a quarantine of ſix days; arrived in Portland Road, after a month's paſſage, where the captain and all the crew went on ſhore, and ſeveral gentlemen from Weymouth came on board. She then proceeded to her deſtined port in Guernſey, where ſhe was at firſt well received, but, within twenty-four hours after her arrival, was ordered to depart inſtantly, under pain of being fired upon by the fort. She performed a quarantine of near four months, at the Muther Bank, during which the crew remained all well; and on the 8th of March was ſunk, under the care of the Arundel man of war, thirteen leagues off the Start.

There certainly muſt have been reaſons, which do not appear in the narrative, for ſuch extraordinary treatment. If danger was apprehended, the deſtruction of the veſſel was indiſcreetly delayed: or was it neceſſary to wait the commencement of the Quarantine Act, which took place the 1ſt of March?

times,

BOOK V. times, however it may aſſume the ſpecious garb of public expediency.

What are men in ſuch a ſituation to do? What deſperate meaſures may they not have recourſe to? Will penal laws reſtrain them from attempting to eſcape from a death more terrible, more imminent, than that denounced by the legiſlature? Will a captain's authority avail, in ſight of a defenceleſs ſhore, preſenting no barriers but laws, which, in the conception of men, actuated by inſtant terror, may be many ways eluded? How dreadful may be the conſequence of one ſhip, under ſuch circumſtances, abandoned by the crew, and left a prey to the ſons of rapine who prowl on ſome parts of the Britiſh coaſt? It cannot be expected, that men proſcribed, in a manner, by their country, will in return ſolicitouſly conſult its ſafety, by ſetting fire to the ſhip they abandon.

On the other hand, when a captain has it in his power to hold out to his men a ſecure haven ready to receive them, where they will meet with every human aid, and where their preſervation will be equally conſulted with that of the community to which they belong, they will think no longer of violences ſuggeſted merely by deſpair, and the uſual ſpirit of ſubordination and diſcipline will take place of that of mutiny and turbulence.

But if the deſperate attempts of an infected crew are at all times to be guarded againſt, redoubled vigilance is required when the peſtilential conſtitution is ſuppoſed to be impending. Irregularities at other times, are often attended with no material conſequence; but when the ſtate of the air is favourable to contagion, the ſmalleſt ſpark may raiſe a conflagration. This, from what I have had occaſion to ſee in Turkey, is ſo ſtrongly impreſſed upon me, that I cannot help thinking ſound policy, all other conſiderations out of the queſtion, urges the neceſſity of having proper conveniences provided for the reception of thoſe unhappy ſufferers, who at

preſent

preſent ſtand, as it were, proſcribed by the laws in ſeveral places in Chriſtendom. Their irruption into the country, in the dangerous ſeaſon now ſuppoſed, and the ſpoils of the abandoned veſſel clandeſtinely diſperſed (a conſequence naturally to be expected) might widely ſcatter the contagious goods, before the police was alarmed, and beyond its power of detection afterwards. A like reaſon, in ſuch times, juſtifies the rigid injunction of ſtricter regulations in the quarantine at the Lazaretto.

CHAP. VI.

Precaution more urgently neceſſary, when the plague prevails on the Continent—The project of building regular Lazarettos, ſubmitted, at ſundry times, to the conſideration of Parliament—Plans and eſtimates required and delivered—Money granted towards purchaſing lands, &c. for the erecting Lazarettos—Plan of a Lazaretto propoſed, in 1758, by the late Doctor Alexander Ruſſell.

WHEN the plague is epidemical in any of the neighbouring ſtates, on the Continent, apprehenſions ariſe, from the ſhortneſs of diſtance, and the facility of acceſs by a hundred unguarded avenues, that recent infection may be imported in full force, and ſpread with reſiſtleſs violence. Theſe apprehenſions are not groundleſs; and, while the popular terror prevails, the ſtricteſt regulations, impoſed by the police, are ſubmitted to without much murmuring. But perhaps the vicinity of the ſource, and freſhneſs of infection imported, are not more to be dreaded than the vicinity of the peſtilential conſtitution of the air, which has been obſerved to paſs progreſſively from one region to another.

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When, therefore, the diſtemper declines in the neighbouring ſtates, though the people in England, recovering confidence, begin to ſhow impatience under thoſe reſtraints to which the preſervation of the country may till then have been owing, the council of health ſhould not, through miſtaken lenity, remit its vigilance. The calm on one ſide of the Channel, may happen to be only the prelude to a ſtorm on the other; and relaxation, in the decline, when danger is thought to be over, may prove of more fatal conſequence than in the height of the peſtilence.

The approach of the peſtilential conſtitution, is ſlow, ſilent, and imperceptible; no human barrier can be oppoſed to it: but if it do not meet with latent ſeeds of contagion to animate or invigorate, it will paſs on, perhaps harmleſsly, to other regions. The prevention of a concurrence ſo deſtructive to mankind, is the grand object of quarantine; and, ſo far as hitherto known, is only to be attained by regular Lazarettos well conducted.

The building regular Lazarettos in England, has, at ſeveral different times, been under the conſideration of government. In the year 1743, the plague then raging at Meſſina, a memorial, dated the 27th of September, propoſing the building of Lazarettos, &c. for the airing of goods then under quarantine in Standgate Creek, was preſented to the Treaſury, from the Commiſſioners of the Cuſtoms.

In the year 1752, the ſcheme of laying open the Levant trade, and for which a bill had paſſed in the Houſe of Commons in 1743, being again revived, the ſubject of Lazarettos, becoming perhaps more neceſſary on account of the projected alteration of the Company's charter, was introduced into Parliament, and the Commons, on the 13th of February, appointed a day for taking into conſideration, in a Committee of the whole Houſe, the moſt proper and effectual manner of performing quarantine.

Several

Several perſons were called for examination; and copies of the memorial from the Commiſſioners of the Cuſtoms, as alſo a report of certain officers of his Majeſty's yards at Deptford and Chatham, dated 11th of January 1752, relating to a proper place on the river Medway, for building a Lazaretto, were laid before the Committee.

On the 5th of March, the following reſolutions were reported.

That the preſent manner of performing quarantine, by airing goods on board hoys and veſſels, is not well calculated to prevent the infection; and is inconvenient and expenſive to the merchant.

That for the better and more effectual performance of quarantine, a Lazaretto ſhould be erected.

That Chedney Hill, near the upper part of Standgate Creek, in the river Medway, is a proper place for a Lazaretto.

The two firſt reſolutions were unanimouſly agreed to by the Houſe; and the third, upon the queſtion being put, was alſo agreed to. An addreſs was then preſented to his Majeſty, requeſting that he would order plans of a Lazaretto, with eſtimates of the charge and building, and maintaining the ſame, to be prepared and laid before the Houſe, at the beginning of next Seſſion of Parliament. To which a gracious anſwer was returned [1].

Nothing more appears to have been done in the buſineſs, till the year 1764, when it was revived in the Houſe of Commons, on the 20th of March, by a motion for reading the reſolutions of the Houſe of the 5th of March, 1752. An addreſs, like the former, for plans and eſtimates, being unanimouſly agreed to, was accordingly preſented to his Majeſty.

[1] Journals of the Houſe of Commons, vol. 26.

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On the 9th of April a plan and eſtimates were preſented to the Houſe, by Lord Charles Spencer; and, on the 13th, a copy of the report of the Navy Board to the Lords of the Admiralty, relative to the expence of a floating Lazaretto, now moored in Standgate Creek, was preſented by Lord Howe.

On the 17th of January, 1765, his Majeſty was addreſſed, to order to be laid before the Houſe, the plans and eſtimates of a Lazaretto, propoſed to be built on Chedney Hill, near Standgate Creek.

On the 11th of March, ſeveral plans of a Lazaretto, propoſed to be built on Chedney Hill, and ſeveral papers containing Mr. Stuart's report, eſtimate, and paper of references, relative to the building of the ſaid Lazaretto, were referred to the Committee of Supply. On the 26th, it was reſolved in the Committee, and agreed to by the Houſe, that a ſum not exceeding 5000l. be granted to his Majeſty towards building a Lazaretto.

There, I believe, the matter reſted till 1772, when ſome doubts ariſing whether his Majeſty, by the Act of the 26th of George the Second, was ſufficiently empowered, to contract and agree for the abſolute purchaſe of lands, tenements, &c. to be ſettled unalienably in the Crown, for making, erecting, and eſtabliſhing Lazarettos, a bill for explaining the clauſe, relative to Lazarettos, in the former Act, was brought into Parliament the 14th of May, and paſſed the 3d of June.

By this Act the Lords of the Treaſury were empowered to purchaſe any tenement, lands, &c. conveniently ſituated for the purpoſes of the Act; and to order payment to be made of the 5000l. already granted, for ſuch purchaſe; and in caſe that ſum ſhould not be ſufficient, then, out of the monies ariſen from the duties on merchandiſe exported and imported. The meſſuages, when purchaſed, unalienably veſted in the Crown, for the purpoſe

pose of making, erecting, and establishing there a Lazaretto or Lazarettos. CHAP. VI.

By the Quarantine Act, 26th of George the Second, whenever his Majesty, by and with the advice of Parliament, shall direct Houses or Lazarettos to be provided for the receiving and entertaining of persons obliged to perform quarantine, or for the depositing, opening, and airing of goods, and merchandise, liable to perform quarantine, it may be lawful to erect the same on common or private grounds, making satisfaction to the proprietors. Temporary Lazarettos only seem to be intended in the above clause, but the power given, by the Explanatory Act, in 1772, is for erecting and establishing permanent Lazarettos, for the reception of persons and goods.

The propriety, or rather the necessity of establishing regular Lazarettos, appears sufficiently from the parliamentary resolutions on the subject, formed upon mature deliberation, after a strict examination of persons, the best able to give information. All seems to have been done that could be expected of the Legislature; what remains, depends on the executive power, which, it is to be hoped, may one time or other find leisure to resume a project that has been more than once in agitation, both before and since the interference of Parliament[z].

I have

[z] In the year 1757, or 1758, England was alarmed by reports of the plague's having appeared in Portugal. Upon that occasion, my late brother, Doctor Alexander Russell, was consulted, by the late Lord Chatham, then Minister of State; and the accounts of the distemper, received by Government, being vague and contradictory, a proposal was made to the Doctor, and accepted, to go over to Lisbon in a sloop of war, in order to ascertain a matter which threatened much embarrassment to commerce.

This affair, in all probability, revived the subject of Lazarettos, which had been in agitation in Parliament some years before; and I found among my brother's papers, the corrected scrawl of part of a memoir, which appears to have been drawn up at the desire of the Minister. I am ignorant what was the result of this; nor

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I have been led into a longer detail on the ſubject of Lazarettos than was firſt intended; yet have omitted a multitude of minute regu-

nor do I know, for certain, whether the memoir was ever delivered; but I am rather inclined to think the firſt part, regarding Lazarettos, was. The ſecond part, entitled General Directions for Quarantine, I ſuſpect was never finiſhed; at leaſt the ſcrawl contains only a few unconnected paragraphs, and breaks off in the middle of a ſheet. I ſhall produce ſome extracts from theſe papers, by way of ſupplement to my own remarks.

The copy of the letter to the Right Honourable Mr. Pitt, which ſeems to have accompanied the memoir, is dated the 28th of March, 1758.

SIR,

IN obedience to your commands, ſignified to me by Mr. Wood, I have drawn up a few thoughts on quarantine, with the outlines of a plan for properly conducting it. I ſhall be extremely happy if theſe hints ſhould be thought of any uſe in promoting ſo laudable a deſign, &c.

"The preſent method of performing quarantine, in England, for want of proper officers, and the neceſſary regulations, is no ſecurity from infection; though perhaps it is attended with the ſame expence and inconveniency to the merchant, as if it were performed in the moſt effectual manner.

"Our diſtance from ſuſpected places, together with the prohibition of ſhips from thence, without clean bills of health, may hitherto have been the means of our preſervation: but if the contagion ſhould unfortunately break out in any neighbouring country, it is much to be feared that before Lazarettos could be provided, and officers trained to the execution of neceſſary orders, were theſe already ſettled, all precaution might be too late.

"A well regulated Board of Health, with proper Officers and Lazarettos, would obviate theſe inconveniencies, and it is preſumed may be ſo conducted as neither to ſubject trade to unneceſſary obſtructions, nor omit any thing that the public ſafety may require.

"The expence, it is believed, will not be conſiderable; but, by giving the outlines of what occurs as immediately neceſſary, perhaps ſome general eſtimate may be made.

"The principal Lazaretto ſhould be ſituated conveniently for the port of London. The ſize of the building ſuch as to admit of ſeparate warehouſes for ten or twelve ſhips cargoes; with conveniencies for paſſengers, and proper dwellings for the

health

regulations reſpecting the guardians and other ſervants of quarantine. I have alſo abſtained from enlarging on the abuſes which have prevailed in foreign countries, and which ought carefully to be guarded againſt in forming a new eſtabliſhment; of theſe CHAP. VI.

health officers, all encloſed by a double wall. A plan of this may be eaſily concerted, and ſo laid out, that further additions might be made, if neceſſary.

"An iſland or peninſula would be the moſt eligible ſituation for a Lazaretto. If this cannot conveniently be had, a place ſhould be choſen, where all communication by ſmuggling, or otherwiſe, may be the eaſieſt prevented. The other requiſites are, that ſhips may ride ſafely, within a reaſonable diſtance from the ſhore, be out of the way of veſſels paſſing, and that boats may come conveniently for landing of goods. The air of the place ſhould be healthy, to obviate inconveniencies and alarms that muſt neceſſarily ariſe from ſickneſs at ſuch times. Perhaps ſome ſuch ſituation may be found on the river Medway.

"A prattique houſe ought alſo to be built, with proper offices, and all conveniencies for examining bills of health, and receiving the reports of captains of ſhips, &c. The ſituation of this, if poſſible, ſhould be at no great diſtance from the Lazaretto, ſo as to admit of ſhips ſending their boats thither, without being obliged to go far out of their way. This will facilitate deſpatch, if, at any ſuſpicious time, it ſhould be neceſſary to examine a number of ſhips, where a quarantine may not be thought requiſite: and, if this place is convenient for watering ſuſpected ſhips, it will be an additional advantage. Perhaps Sheerneſs, or ſome where near to it, may be found the moſt convenient for the port of London.

"A prattique houſe at Deal is abſolutely neceſſary, and it is ſubmitted to further conſideration, whether a few Lazarettos, or prattique houſes, ought not to be provided at ſome of the out-ports. Humanity directs one, at leaſt, at St. Helen's Pool, to which place infected ſhips are ordered to repair, by the law, as it now ſtands.

"The only officers required neceſſarily to reſide within the Lazaretto, are one principal, who is to have the direction of the whole, under the Board of Health. One head porter, or gate-keeper; and ſome other aſſiſtants, according to the number of landing places. The guardians, for attending the paſſengers, and porters, for turning and airing the goods, who reſide there only when occaſion requires. To theſe muſt be added, without the walls, watchmen for the night.

"The officers neceſſary for the prattique houſe connected with the Lazaretto, are one, or perhaps two chiefs. One ſurgeon, a clerk, and one or two ſervants. A captain of the port, who may alſo be perfumer, guardians, and boats with boatmen.

"For

BOOK V. theſe abuſes many have been expoſed, in the French memorials contained in the Traité de la Peſte, and have ſince been remedied at Marſeilles, in 1730[3].

The facts produced, as derived from local obſervation, have been ſtated with ſtrict regard to truth; the concluſions deduced from them may ſometimes be erroneous, but may ſerve to ſuggeſt hints to others, qualified to improve them. Laſtly, the particular caſes, propoſed by way of examples of practice in quarantine, are not purely imaginary. Real facts have been modified and combined, for the purpoſe of illuſtration; but, the caſes, in the main points, have happened, and may happen again. The deciſions on theſe caſes, are ſometimes agreeable to the practice in other countries, ſometimes variations have been made, on account of local differences, or for other reaſons. They are not propoſed as invariable models. Indeed it may be expected that time and experience, in conjunction with the national inventive ſpirit, will introduce material improvements into all the departments of quarantine in England, will contrive ſpeedier methods of purifying infected merchandiſe, and abridge many of the other reſtraints at preſent ſo prejudicial to trade, and ſo vexatious to individuals.

" For ſuch prattique houſes as are only intended for ſhips accidentally touching, one principal officer, and one truſty guardian, with a proper boat and boatmen, are all that are neceſſary.

" The whole of the health officers, throughout the kingdom, ought to be under the direction of a Board of Health in London, conſiſting chiefly of gentlemen who have ſeen ſomething of quarantine abroad, and who would be induced by their public ſpirit to ſerve without ſalaries. To theſe ſhould be added a ſecretary, and a phyſician, to aſſiſt in giving the proper directions, and to viſit the Lazarettos, in caſes of emergency.

[3] Traité de la Peſte, p. 11. 175. 201. See alſo Gaſtaldi, and Howard on Lazarettos.

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An abridged account of the ſeveral Quarantine Acts of Parliament, ſince the year 1710—A few remarks on them, and on ſome later orders iſſued from the Privy Council—No proviſion made at the out-ports, for the reception of ſhips liable to quarantine—Unneceſſary delays, ariſing from the quarantine officers not being furniſhed with proviſional inſtructions—The orders relative to airing of goods require reviſal—A Board of Health ſhould be eſtabliſhed.

IN the laſt century, and indeed till ſo late as the year 1710, it would appear that the orders and regulations for preventing the plague being brought into Britain, from foreign parts, and for obliging ſhips to perform a quarantine, were iſſued from the King in Council, by proclamation, without the interference of Parliament. The preamble to the firſt Quarantine Act, in the 9th year of Queen Anne, ſhows that her Majeſty had iſſued ſuch orders, and there can be no doubt that her predeceſſors, on ſimilar occaſions, had done the ſame.

This firſt act, being hurried through both Houſes, received the Royal Aſſent in leſs than eight days from the time the bill was ordered; and it commenced two days after. The plague at that time was raging in ſeveral places on, or near the Baltick Sea, and it probably was found neceſſary to enforce certain regulations, more effectually than could be done without the interpoſition of the Legiſlature. One conſequence of precipitating the bill was, the omiſſion of airing the goods liable to quarantine; the bill being at firſt ingroſſed without any clauſe to that purpoſe; and the clauſe for opening and airing the goods after quarantine, was added, by way of ryder, only the day before the Royal Aſſent was given to the act.

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Conſidering the circumſtances under which the bill was drawn up, it is the leſs to be wondered that it ſhould have been very defective; but by expreſsly empowering the Crown, in caſe of any foreign places being infected, to iſſue ſuch orders for quarantine as might appear neceſſary, it, at leaſt, conferred a ſanction in future on the Royal Proclamations, relating to quarantine, which they had not before; and rendered the breach of orders more immediately an object of legal puniſhment. In the preamble to the act, by which it was repealed in the following reign, it was repreſented as having "been found by experience "defective, and inſufficient for the purpoſes intended; and the "penalties inflicted not adequate to the offences prohibited."

Upon an alarm, occaſioned by the plague at Marſeilles, in the year 1720, the ſubject of quarantines was again introduced into the Houſe of Commons. On the 17th of December, in that year, a quarantine bill was ordered to be prepared by the Attorney and Solicitor General, which was read the 10th of January, and committed to a Committee of the whole Houſe. The Levant Company petitioned againſt it; but it paſſed the 21ſt of January, and received the Royal Aſſent the 25th. The act was to commence the 10th of February, and to continue in force three years, or till the end of the then next Seſſion of Parliament.

More pains and deliberation had been employed in preparing this act, than the former; and it conſequently came out not only enlarged, but much improved. The act of Queen Anne was repealed; and certain clauſes being inſerted, for preventing the infection from ſpreading, that circumſtance was expreſſed in the title of the new act[1].

[1] The title of Queen Anne's Act was, "To oblige ſhips coming from places infected more effectually to perform their quarantine."

The title of the preſent act was, "For repealing an act (Queen Anne's Act) and for the better preventing the plague being brought from foreign parts into Great Britain or Ireland, or the iſles of Guernſey, &c. &c. and to hinder the ſpreading of infection."

The

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The clauſes more immediately calculated for hindering the infection from ſpreading, ſuppoſe the plague exiſting in the country. They will be more particularly adverted to, in the following book: but in what regards the regulation of ſhips coming from infected places, moſt of the clauſes, with very little variation, have been tranſcribed in the ſeveral quarantine acts which have paſſed ſince, and they are now in force. The continuance of this act, was, by a clauſe added by the Lords, to a ſubſequent act, limited to the 25th of March, 1723.

The plague of Marſeilles gave occaſion to two other acts, in the next Seſſion of Parliament. The one, "to enable his Majeſty effectually to prohibit commerce, for the ſpace of one year, with any country that is, or ſhall be, infected with the plague[z]." The other, "to prevent the clandeſtine running of goods, and the danger of infection thereby; and to prevent ſhips breaking their quarantine."

The firſt received the Royal Aſſent the 12th of February, 1721-2; the ſecond, not till the 7th of March, having encountered various obſtructions in its progreſs, on account of the clauſes reſpecting ſmuggling.

It may be remarked, that in July preceding, a bill to prevent the plague being brought in by ſmuggling, had paſſed in the Houſe of Commons, but was rejected by the Lords. At the beginning of the next ſeſſion, the danger to be apprehended in times of infection, from the practice of ſmuggling, was mentioned in his Majeſty's Speech; and a new bill being brought in, the 15th of December, the act received the Royal Aſſent the 7th of March.

[z] And for ſhortening the continuance of an act paſſed in the 7th year of his Majeſty (The Quarantine Act).

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Power had been given before, by the Quarantine Act, in times of infection, whether in Britain, Ireland, the iſles of Guernſey, &c. or France, Spain, Portugal, or the Low Countries, to prohibit veſſels of leſs burthen than 20 tons, from ſailing out of any port of Great Britain, &c. except under certain conditions. By the preſent act, foreign ſpirits, &c. were not to be imported in veſſels of leſs than 40 tons; and ſhips departing, without licence, from places appointed for quarantine, are forfeited, and the commanders forfeit 200l.

All theſe acts of the 7th and 8th of George the Firſt, being temporary, terminated in two or three years; and upon the expiration of the Quarantine Act, in March, 1723, that of Queen Anne, of courſe revived, and continues to be ſtill in force.

Matters remained in this ſtate till the firſt year of George the Second, when the plague being in foreign parts, an act paſſed, exactly under the ſame title as the former, except ſo far as regards the repeal of Queen Anne's Act. Leave was given to bring in the bill on the 9th of May, 1728. On the 10th it was read a ſecond time, and committed; it paſſed the 24th, and, being agreed to by the Lords, without amendments, it received the Royal Sanction the 28th.

The moſt material clauſes, relative to the quarantine for ſhips, were nearly verbatim the ſame with thoſe of the 7th of George the Firſt. Some however were omitted; and the power of prohibiting commerce, for the ſpace of one year, which had been the ſubject of a ſeparate act, in 1721, was now inſerted in the preſent; and power given to the King, to prohibit (by proclamation under the great ſeal) commerce between his ſubjects and places infected; alſo to prohibit perſons coming from ſuch places entering his dominions, under a penalty of 500l. The exporter of goods to forfeit double their value; and ſhips or perſons coming from infected places, contrary to the proclamation, the perſons are

are deemed guilty of felony; and the ſhips and goods are forfeited. The procurer of ſuch goods to be imported, forfeits treble their value.

Among the principal clauſes of the former Quarantine Act now omitted, beſides thoſe which had been repealed in 1721, were the 4th, empowering his Majeſty, in Council, in times of infection in Britain, to make orders for the regulations of quarantine, &c.—And the 13th, giving power to order ſhips coming from infected places, or laden with goods from ſuch places, or having on board any infected perſon, to be burnt.

The clauſes reſpecting the hindering the infection from ſpreading, will come under conſideration hereafter. They are chiefly thoſe concerning Lazarettos; the reſtraint of ſmall boats under 20 tons; and the compelling perſons, liable to quarantine, to compliance with orders.

It is worth obſerving, that in this act, as well as in that of George the Firſt, the order for opening and airing goods, *after the quarantine of the ſhip and crew*, is continued. A regulation productive of very unneceſſary delay, not to mention other inconveniencies, which has been corrected in the ſequel.

This act, like the others made in 1720 and 1721, being only temporary, was permitted to expire in 1731; but in 1733, a bill was brought in for reviving it; the plague having again made its appearance in ſome foreign places. The bill was ordered the 4th of June, preſented, read twice, and committed the ſame day; reported and ordered to be engroſſed the day following, and paſſed the 6th. No amendments being made by the Lords, it received the Royal Aſſent on the 13th. The act to continue in force from the 2d of June, 1733, for two years, and from thence to the then next Seſſion of Parliament [3].

[3] The title is, An Act for reviving ſo much of the Act made in the Firſt Year

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It may be remarked, that from the year 1735 to the year 1753, the act of Queen Anne, was the ſole quarantine law remaining in force, in Britain. In this interval, happened the plague at Meſſina, in 1743, and his Majeſty being abroad, the Lords of the Regency ordered all ſhips from the Mediterranean, bound to the river Thames, to perform their quarantine in Standgate Creek only[4].

In the year 1752, quarantines became again a ſubject of parliamentary diſcuſſion; and in the following year, on the 22d of January, Lord Barrington, and five other members, were appointed to prepare a quarantine bill, which was accordingly preſented the 8th of February, and ordered to be printed. On the 20th the bill was read a ſecond time. The acts of the 7th and 8th of George the Firſt were, upon motion, read, and the bill was committed on a diviſion, 92 to 49. After being four or five days in a Committee of the whole Houſe, the bill, with amendments, was reported the 12th of March. The next day, after further conſideration and amendments, it was ordered to be engroſſed, and on the 16th it paſſed. The Lords, on the 4th of April, agreed to the bill, with ſome amendments, which, on the 10th, being approved by the Commons, the Royal Aſſent was given on the 17th[5].

of his Majeſty's Reign, entitled, &c.—as relates to the performing quarantine, and the preventing the ſpreading of infection, and to enable his Majeſty to prohibit commerce with any country or place infected with the plague, for a certain time therein limited.

[4] In September, 1743, the clerk of the Scipio fire-ſhip was committed to the Marſhalſea priſon (by a ſpecial warrant from the Lords of the Admiralty) for ſix months, purſuant to a ſentence of a court-martial, for not performing quarantine agreeably to the direction of the Lords of the Regency. The boatſwain of the ſame ſhip was tried at the ſame court-martial, and condemned to die, for leaving the ſhip, and not performing quarantine. The leaving the ſhip might perhaps be puniſhable by death, but the not performing quarantine was certainly not a capital crime by Queen Anne's Act.

[5] An act to oblige ſhips more effectually to perform their quarantine; and for the better preventing the plague being brought from foreign parts into Great Britain or Ireland, or the iſles of Guernſey, &c. &c.

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It had been propoſed in the Committee to limit the continuance of the act to five years, but the queſtion being put, paſt in the negative. The act commenced the 1ſt of March, 1754; and its continuance was left indefinite.

While the bill was yet depending in Parliament, another was brought into the Houſe of Commons, on the 14th of February, for enlarging and regulating the trade into the Levant ſeas; to which, on the 10th of April, when the bill was reported, were added two clauſes reſpecting quarantine. The one, "that all "rules, orders, and regulations, made for preventing infection, "ſhall be, and remain in full force and virtue, as if this act "had never paſſed." The other, "that no goods or merchan-"diſes liable to retain the infection of the plague, and coming "from the Levant, without a clean bill of health, ſhall be landed "in any part of Great Britain, &c. &c. unleſs it ſhall appear to "the ſatisfaction of his Majeſty, his heirs, or ſucceſſors, or of "his or their Privy Council, that the ſaid goods or merchandiſes "have been ſufficiently opened and aired in the Lazaretto of "Malta, Ancona, Venice, Meſſina, Leghorn, Genoa, and Mar-"ſeilles, or one of them."

This Regulating Act received the Royal Aſſent the 15th of May, a month after the Quarantine Act, and was to take place the 24th of June, in the year following.

The orders alluded to for preventing infection were, I ſuppoſe, thoſe made by the Levant Company; and the obliging ſhips to perform their quarantine in one of the foreign Lazarettos, was only a temporary expedient, till the determination reſpecting the building of Lazarettos, a ſcheme then in contemplation, ſhould be known.

Quarantines had never before undergone ſuch a deliberate diſcuſſion in Parliament, as at this period. No circumſtances of urgent

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Moſt of the clauſes of the former acts, having been literally adopted in the new Quarantine Act, may be ſaid to have received the ſanction of Parliament four different times; that is, in 1720, 1728, 1733, and 1753. The new act, however, made conſiderable improvements; in ſome inſtances, by the clauſes being more correctly expreſſed; in others, by important additions.

Among the additional clauſes, the principal was that by which ſhips, on which the plague may appear, being to the northward of Cape Finiſterre, were to proceed to the harbour of New Grimſby. But, in conſequence of a petition from the inhabitants of the Scilly Iſlands, the place for infected ſhips was changed, by a ſubſequent act, in 1756, to St. Helen's Pool[6].

A ſecond additional clauſe in the new act was, that the maſter of a veſſel performing quarantine, ſhould deliver to the officer appointed, the bill of health and manifeſt of the Britiſh Conſul, with the log-book and journal, under penalty of 500 l.

A third clauſe, not ſo clearly expreſſed in former acts, was, in reſpect to all perſons, liable to perform quarantine, whether in ſhips, Lazarettos, or elſewhere. That they ſhall be ſubject, during quarantine, to ſuch orders as they receive from the proper officers; who are empowered to enforce their orders, and, in caſe of neceſſity, to call in others to their aſſiſtance; and all perſons ſo called in are required to aſſiſt accordingly.

[6] Anno 29 George the Second, An Act to repeal the Clauſe of an Act, &c. whereby the ſtationing of ſhips infected with the plague to the northward of Cape Finiſterre, is confined to the harbour of New Grimſby, and removable to no other place; and for appointing a more ſafe and commodious place.

A fourth

A fourth clauſe, not comprehended in the former acts was, "That "if any quarantine officer ſhall embezzle, or ſhall willingly da- "mage, any goods performing quarantine under his direction, "he ſhall be liable to pay treble damages, and full coſts of ſuit." CHAP. VII.

A fifth alteration from the former acts, relating to ſhips liable to quarantine, was the leaving out, "all ſhips coming from infected "places, or from any place, the inhabitants whereof are known "to trade or correſpond with any country or place actually in- "fected"—and retaining only "all ſhips, perſons, and goods "coming from places from whence his Majeſty, in Council, may "judge it probable that the infection may be brought."

A ſixth variation from the former acts, was in the order for air- ing goods, in leaving out the words *after quarantine performed*, and expreſſing the order more briefly, "all goods, wares, and mer- "chandiſes, liable to quarantine, ſhall be opened and aired in ſuch "places, or for ſuch time, or in ſuch manner as ſhall be directed "by his Majeſty."

A ſeventh alteration, was that regarding Lazarettos, by which the power of ordering them, lodged formerly with the King alone, is placed in his Majeſty, *by and with the conſent of Parliament*; and diſputes that might ariſe concerning the lands to be appro- priated to ſuch purpoſes, are to be ultimately ſettled by a jury, inſtead of the juſtices.

Laſtly, in the title, as well as in the preamble of the act, the words, *and for preventing the ſpreading of infection* are entirely left out. It may be conſidered alſo as an innovation, that the noti- fication of orders for quarantine, may either be by proclamation, as before, or publiſhed in the London Gazette.

In tracing the progreſs of the quarantine laws, a remark for- cibly offers itſelf, that till the year 1753, they never came under

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the conſideration of Parliament, but when preſſed upon it, by apprehenſions raiſed by the plague on the Continent, or in other foreign places. The neceſſity of expediting the acts, hardly admitted time for due deliberation. They were all temporary; and being allowed to expire, were occaſionally revived, for the ſame urgent reaſons for which they had at firſt been framed; and conſequently were revived without correction or improvement.

This was not the caſe with the preſent Quarantine Act of George the Second, which is now in force; and which has hitherto required no amendment, except in changing the ſtation for infected ſhips, from New Grimſby to St. Helen's Pool; and in an explanation of the clauſe relative to Lazarettos, by an act in the 12th year of his preſent Majeſty[7].

The few following obſervations on the quarantine laws, are offered with the utmoſt deference.

By the amended ſecond clauſe of the ſtatute 26th of George the Second, every infected veſſel, being to the northward of Cape Finiſterre, ſhall proceed to St. Helen's Pool; where the captain ſhall make known his caſe to ſome officer of the cuſtoms there, who, with all poſſible expedition, ſhall tranſmit the intelligence to one of the principal ſecretaries of ſtate; in order that meaſures may be taken for the comfort and ſupport of the crew, and ſuch precautions uſed, to prevent the ſpreading of the infection, as the caſe may require. The veſſel to remain there till his Majeſty's pleaſure be known; and, in the mean while, the maſter and crew not to go out of the ſhip, under pain of death. Such veſſels as cannot make the harbour of St. Helen's Pool, ſhall not preſume to enter any port, but ſhall remain in ſome open road (under the ſame penalties) till orders arrive from the King in Council.

[7] An act to explain and amend ſo much of an act made in the 26th year of the reign of his late Majeſty King George the Second, as relates to the eſtabliſhment of Lazarettos.

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It is certainly highly proper that there ſhould be a determined place or places, for the reception of veſſels ſo unhappily circumſtanced; but the ſhutting up the ſound and infected together, in the ſame veſſel, till orders be received from his Majeſty, is unintentionally rigorous, and would ſeem to be no leſs impolitic, than it is unneceſſary. A delay of ſix or ſeven days falls heavy on perſons in ſight of ſhore, in hourly dread of contracting a mortal diſtemper. Penal laws will prove a feeble reſtraint on deſperate men flying from death; and, in the preſent caſe, it is of more importance to ſociety, to leſſen the temptation to infractions of quarantine, than to puniſh them when committed.

But beſides the difficulty of enforcing the regulations of quarantine, under ſuch circumſtances, the delay would ſeem to be wholly unneceſſary; becauſe no orders or directions, in the power of the Privy Council to iſſue, on ſuch an emergency, can be imagined, which might not be more maturely concerted before-hand; and which, by being lodged with the cuſtom-houſe officer, or other perſons appointed for that purpoſe, would enable them to act effectually at once, at leaſt ſo far as to ſeparate the infected from the ſound: a meaſure urgently requiſite, for preventing the infection from ſpreading among the crew, and which would diſpoſe them more to compliance with regulations, than the threatenings of the law.

Similar reaſons render it alſo deſirable that the act, inſtead of open roads, had ſpecified one or more ſtations for ſuch veſſels as cannot make the harbour of St. Helen's Pool. The perſons reſiding there, entruſted with the ſuperintendence of quarantine, ſhould alſo have proviſional orders from the Council, enabling them to act immediately, in relieving the crew. The ſtations ſhould be ſelected upon ſurveys, and with the aſſiſtance of perſons converſant in ſea affairs; for the harbour of New Grimſby, appointed at firſt for the reception of infected veſſels, was ſoon diſcovered to be an improper place.

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By the third clauſe of the ſtatute the captain of the ſhip is obliged to anſwer truly to certain interrogatories, under pain of a forfeit of 200l. for each offence; and in caſe he ſhould conceal his having come from a place viſited by the plague, or the having any perſon on board actually infected, he ſhall be judged guilty of felony, and ſhall ſuffer death without benefit of clergy.

The interrogatories ſpecified, for the captain's examination, are well calculated for the purpoſe intended. Another perhaps might be added, viz. Whether any parcel, package, &c. had been delivered to any other veſſel on the paſſage, or any parcel, &c. been received from ſuch veſſel. Communication of perſons is provided for, but parcels may be interchanged without perſons going on board of each others ſhips, or without any clandeſtine intention.

By the 15th clauſe, if the commander of a ſhip, liable to perform quarantine, having notice thereof, ſhall himſelf quit the ſhip, or knowingly ſuffer any one elſe to quit it, by going on ſhore, or on board any other ſhip; or if he does not repair to the place appointed for the ſhip to perform quarantine, in due time after notice, he forfeits 500l. Perſons quitting the veſſel, to be obliged by force to return on board, to ſuffer ſix months impriſonment, and to forfeit 200l.

By the 8th clauſe, perſons obliged to perform quarantine, wilfully refuſing, or attempting to eſcape, may be compelled, by ſuch force as the caſe ſhall require, by the perſons appointed to ſee quarantine performed, to return to the houſe, Lazaretto, or other place appointed for quarantine—and perſons refuſing or neglecting to go into the Lazaretto, and alſo every perſon actually eſcaping, ſhall be adjudged guilty of felony.

The danger to be apprehended from quitting a ſhip liable to quarantine, or eſcaping from a Lazaretto, would ſeem to be the ſame;

ſame; but the penalty incurred is very different. In the one caſe, impriſonment, and pecuniary mulcts; in the other, death without benefit of clergy. To prevent the completion of this crime, which is the chief object in both caſes, the watchmen, in foreign countries, are empowered, where they cannot otherwiſe prevent an eſcape, to fire upon, or kill the fugitive.

By the 11th clauſe, any officer of quarantine who ſhall embezzle, or willingly damage any goods performing quarantine under his direction, ſhall pay treble damages, and full coſts.

Embezzlement, though committed under truſt, as it tends directly to the ſecreting, and circulating infected goods, would appear to be too ſlightly puniſhed.

The Quarantine Act, marking the great lines only, leaves the detail and execution to his Majeſty in Council; which, different from the practice in moſt other countries, conſtitutes the only Board of Health in Britain. But, conſidering the multiplicity of affairs claiming the time and attention of the Privy Council, and the important offices held by many of the Members, it can hardly be expected that that Board ſhould find leiſure ſufficient for entering into a variety of minute enquiries, abſolutely neceſſary to the eſtabliſhment of permanent regulations, and for framing proviſional directions for a number of emergencies, incident to the ſuperintendence of quarantine. Hence it is not to be wondered if powers, which the Council ought alone to exerciſe, be too readily delegated to others; if orders be ſometimes iſſued upon imperfect information, and unſteadily altered or revoked, without any fixed rule of deciſion; and laſtly, if frequent delays happen unneceſſarily, from an omiſſion of making due proviſion for ſuch exigencies as may be expected, in the ordinary courſe of things. That theſe allegations are not altogether without foundation, I ſhall endeavour to ſhow by a few examples.

In

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In the year 1770, upon account of the plague raging in Walachia, Podolia, and other parts of Poland, an order was publiſhed, the 5th of October, obliging all veſſels, perſons, and goods, coming from Dantzick, or any other place in Royal and Ducal Pruſſia, or Pomerania, to perform a quarantine of forty days. Ships bound to the rivers of Thames and Medway, not having the infection on board, were to perform their quarantine in Standgate Creek, but, in reſpect to veſſels bound to other ports, the officers of the cuſtoms in the reſpective ports were empowered and required to appoint proper places; and, in the iſles of Jerſey, &c. the ſame powers were given to the governors of thoſe iſles.

This delegation to the officers of the cuſtoms, muſt have been owing to the Council not being as yet ſufficiently acquainted with proper places for veſſels to perform quarantine, in Great Britain, though twenty-ſeven years had elapſed from the time of paſſing the Quarantine Act; and, from leaving it diſcretionary to the officers of the cuſtoms to appoint the ſtations, it is evident no arrangements had been made, by the Council, for the reception of veſſels at the ſeveral ſtations; they were to repair thither and wait for further orders.

At what period the officers of the cuſtoms were exonerated of this duty, and the Council took upon itſelf to appoint the reſpective ſtations, I do not know; but in an order, iſſued the 15th of December, 1780, on account of the plague ſpreading in many places of the Ukraine and Volhinia, no leſs than ſeven ſtations in England, four in Scotland, and two in Jerſey and Guernſey, were appointed ſpecially, for the performance of quarantine.

If ſuch a number of places in Britain muſt unavoidably be allotted for this purpoſe, ſome arrangements ought undoubtedly to be previouſly made there for the reception of veſſels; and a more efficient guard, than a few inferior cuſtom-houſe officers, ſhould be provided, to ſee the quarantine duly performed. If this be not done,

done, the moſt effectual means of defence are certainly not employed, and the ſeveral ſtations for quarantine may be conſidered as ſo many avenues by which infection may find its way into the iſland. CHAP. VII.

Suppoſing for example, what certainly may be ſuppoſed of any veſſel liable to perform quarantine, that in airing the cargoes of ſome of thoſe from the Baltic, in any of the diſtant ſtations, the infection ſhould diſcover itſelf among the crew working on the goods. What is to be done? Is the veſſel to wait for orders from the Council, or is ſhe to be ordered at once from a remote creek in Scotland, to proceed (with the infection ſpreading on board) to St. Helen's Pool, agreeably to the ſtatute? If ordered to go to St. Helen's Pool, are the cuſtom-houſe officers, in the out-ports, in a condition to compel obedience to their order? It is true they are empowered, by the 9th clauſe of the ſtatute, to call others to their aſſiſtance; and all perſons ſo called are required to aſſiſt; and by the orders of his Majeſty, in Council, commanders of ſhips of war, of forts, and garriſons lying near the ſea-coaſts, juſtices of the peace, mayors, ſheriffs, bailiffs, chief magiſtrates, conſtables, headboroughs, tything-men, and all other officers and miniſters of juſtice, are required to be aiding and aſſiſting the officers of the cuſtoms. Theſe precautions, for enforcing the due performance of quarantine, are no doubt wiſely concerted; in ſome ſituations they would fully anſwer the purpoſe; and, in the caſe now ſuppoſed, where there is no ſhip of war to convoy the infected veſſel to her allotted ſtation, would enable the officers to defend their own coaſt. But what may not be apprehended in other maritime places, unalarmed and defenceleſs, from a wretched crew driven to deſperation: is it not likely they would attempt an eſcape on ſhore, at all hazards?

Further, were the maſter of the veſſel to ſubmit reſignedly, and make the beſt of his way to St. Helen's Pool, on his arrival there, would he find a place ready to receive his ſick? Or muſt

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he ſee the reſt of his crew periſh in waiting for the orders of the Council. The ſtatute is ſilent reſpecting the ſeparation of the ſick; and the order of 1780, makes no proviſion whatever for ſhips, on board of which the infection may diſcover itſelf during the performance of quarantine, as if no ſuch accident could happen.

If it be ſaid the immediate wants of the veſſel will no doubt be ſupplied, and the Council will, with all poſſible ſpeed, deſpatch the requiſite orders for her further relief; the remark made before on the ſecond clauſe of the ſtatute may be repeated, namely, that the Council can frame no orders, in ſuch a caſe, which might not have been framed long before, and depoſited proviſionally, with the officer of quarantine, who would thus be empowered to provide immediately for the infected ſick: a circumſtance material for the preſervation of the crew, and for ſecuring a ſtricter obſervance of the quarantine.

The total ſilence of the order of 1780, reſpecting ſuch a caſe as was above ſuppoſed, renders it probable that neither in any of the diſtant ſtations of quarantine, nor even at St. Helen's Pool, preparatory arrangements had been made at that time; if there had, ſome reference would have been made to them. If there were none, a dangerous delay is inevitable; and, in the execution of whatever orders the Council might iſſue, the cuſtom-houſe officers would find themſelves embarraſſed, from the want of previous diſpoſitions to facilitate deſpatch.

That the officers of the cuſtom-houſe are furniſhed with no inſtructions for their conduct, in matters of quarantine, beſides what are contained in the ſtatute 26 George the Second, or in public orders, iſſued occaſionally, from the Privy Council, may be ſuſpected from what happened ſo lately as in 1783.

Towards the end of July, in that year, information being received of the plague having appeared on the frontiers of Poland,

all ſhips from Dantzick, or any port or place in Royal or Ducal Pruſſia, or Pomerania, were ordered to perform a quarantine of forty days. It had not occurred to the Council that, amongſt the veſſels from thoſe parts, there might happen to be ſome laden with grain only, otherwiſe it may be ſuppoſed proviſional diſtinction would have been made reſpecting ſuch cargoes, and inſtructions given to the officers of the cuſtoms how to proceed; and this the rather, becauſe grain is entirely omitted, both in the orders of 1770 and 1780, though wine and oil (which like grain are reckoned not ſuſceptible of infection) are particularly mentioned.

Five or ſix days after the publication of the above order, a memorial was preſented to the Lord Provoſt of Edinburgh, ſetting forth the ſtate of the city to be then ſuch, that there was imminent danger of a famine, in conſequence of the late order of the Privy Council; there not being grain then in the granaries ſufficient for three weeks conſumption. This memorial was preſented the 31ſt of July; and, three days after, at a general meeting of the magiſtrates, and others aſſembled on purpoſe, after conſulting two eminent phyſicians, who gave it as their opinion, that there was very little danger of the peſtilence being conveyed in grain, it was determined to tranſmit the memorial, and opinion of the phyſicians, to Lord North, to be by him preſented to the Privy Council; together with a letter from the Lord Provoſt, praying that ſuch relaxation might be allowed, in the diſcharge of all cargoes of foreign grain, as the diſtreſſed ſituation of the country ſo loudly called for. In conſequence of this application, the Privy Council, going beyond the prayer of the petition, iſſued an order, on the 9th of Auguſt, that the reſtraint of quarantine be taken off all ſhips and veſſels already arrived, or that may hereafter arrive from Dantzick, &c. laden ſolely with grain; and that they may be permitted to diſcharge their reſpective ladings, without unpacking, opening, and airing, and without performing any quarantine; provided the maſter of the veſſel makes oath,

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that the crew are free from all infection, and that they have not had communication with any ſhip or veſſel coming from any infected place.

It is obvious here, that the omiſſion of grain, among the other articles, which might poſſibly be imported from ſuſpected places, was a material defect in the regulations for quarantine; for had proviſion been made reſpecting ſuch cargoes, there would have been no occaſion for a haſty conſultation of phyſicians; for a delay of ſuch alarming tendency; or for praying a relaxation of eſtabliſhed rules, upon a plea of the preſſing diſtreſs of the country. The quarantine officers would have found themſelves in a ſituation to act immediately; and, without any relaxation of eſtabliſhed regulations, might have remedied the diſtreſs of the country, in half the time inevitably taken up in conſultation and petitioning. The memorial to the Lord Provoſt was preſented the 31ſt of July, and the expreſs, with orders for taking the quarantine off the corn ſhips, did not arrive at Edinburgh till the 13th of Auguſt, ſo that before the veſſels from the ſtations where they lay in quarantine could arrive to diſcharge at Leith, a whole fortnight was loſt.

The tenour of the indulgence granted by the Council, carries marks of the hurry in which the order was iſſued; and ſhows, at the ſame time, the propriety of concerting regulations when there is leiſure for deliberation, and not under the urgency of inſtant danger.

In the order publiſhed only twenty days before, wine and oil in cheſts, thread ſtockings, all goods packed with ſtraw and cotton, mats and matting, and ſails, are enumerated among the goods more eſpecially liable to retain infection, and which, on that account, are, by the former orders, to which the preſent refer, ſubject to a longer airing. This diſtinction and reſtraint were ſtill continued in regard to all veſſels, except thoſe laden with grain,

grain, which without any viſible neceſſity were permitted to diſcharge their cargoes, without any precaution whatever; as "to "the *bags* or *ſacks*, in which the ſaid corn is contained, or mats "made uſe of ſolely for the purpoſe of dunnage"—As if the ſacks, bags, mats, and ſails, in ſhips laden with grain, were leſs to be ſuſpected than the ſacks, mats, and ſails employed in other ſhips.

A deviation from orders of ſo recent a date, as well as from rules eſtabliſhed in other countries, may, without offence, be aſcribed in ſome meaſure to want of information, and hurry of buſineſs. The grain might have been ſtarted into lighters, to be repacked in freſh ſacks, as uſually practiſed elſewhere; and this might have been done the ſecond or third day after the ſhip's arrival, or as ſoon as the ſtate of the crew and cargo could have been properly aſcertained. But no viſible reaſon appears why the ſacks, mats, &c. as well as the crew, ſhould be exempt from reſtraint whilſt a quarantine was rigorouſly enforced upon all other veſſels. The declaration of the maſter, that he had loſt none of the crew on the voyage; that he had had no communication with ſuſpected ſhips; that he had no enumerated goods on board; and that the crew, upon muſtering by the proper officer, were found all in health; were favourable circumſtances, but far from ſufficient to plead as an exemption from a certain quarantine. The urgent neceſſity of the country required the grain only; the ſhip and crew had nothing to do with the apprehended dearth, and ought to have remained ſome time under reſtraint. It is more than probable that the Council, deliberating at more leiſure, would have perceived the field left open for illicit trade, and irregularities of every kind, in admitting ſuch diſtinctions, reſpecting veſſels from ſuſpected ports performing quarantine in the ſame place: the temptation to ſmuggle ſmall parcels, if not other more bulky ſuſceptible goods, would be too powerful for the vigilance of the guards of quarantine.

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The year 1770 affords two more inſtances of what has the appearance of precipitation, in the determinations of the Council.

An order was iſſued the 19th of October, that rags and cotton wool, being goods more eſpecially liable to retain infection, imported in any veſſel not obliged to perform quarantine, ſhould be put on board a hoy, and ſent to perform a quarantine of a fortnight in Standgate Creek, if the veſſel was bound for the Thames; but if bound for other ports, the rags and wool were to be taken out before the veſſel could unload, to be put on board ſome proper veſſel to be unpacked, opened, and aired, in like manner as on board the hulk at Standgate Creek. The plague raging at this time, at Conſtantinople, and in Poland, the quarantine was extended to all veſſels from the Mediterranean, Dantzick, Royal and Ducal Pruſſia, &c.

If danger was really to be apprehended from rags and wool, ſurely the permitting their importation in veſſels not liable to quarantine, upon condition of their being taken out to be purified, was a ſingular method of preventing infection; and, if once admitted into practice, would put an end to all ſecurity from quarantines.

A diſcovery was made ſoon after, that occaſioned the above order to be revoked; for, upon repreſentation being made, that rags imported were frequently ſtowed in different parts of the ſhips, among other goods ſuſceptible of infection, it was ordered that all veſſels whatſoever, having rags and wool on board, ſhould perform a quarantine of forty days.

But the ſame cauſes which had led to the firſt error produced a ſecond, for within a fortnight, upon a ſecond repreſentation, ſtating that cotton, wool, and rags were commodities brought from America and the Weſt Indies, all ſhips from thoſe places, with cotton, wool, and rags on board (the produce of thoſe countries) were exempted from quarantine.

A board,

A board, whoſe only buſineſs had been the regulating of quarantines, would in all probability have proceeded upon better information, would have been better prepared for the various caſes that preſent, and would not have iſſued ſuch fluctuating orders.

The other inſtance, in the year 1770, reſpects Hamburgh and Bremen, to which the quarantine then ſubſiſting, upon all ſhips, perſons, and goods, coming from Dantzick, Royal and Ducal Pruſſia, &c. was extended on the 1ſt of November; on account of the plague raging in divers parts of Poland, from whence, it was apprehended, the infection might be brought in ſundry commodities, the produce of thoſe places, to Hamburgh and Bremen, and thence imported into Britain. On the 20th the Swediſh Envoy informed the Secretary of State, that no ſhips, or travellers, would be admitted into the ports or frontiers of Sweden, without proper bills of health. In conſequence of which, notice was given to apply for ſuch patents, to the Commiſſioners of the Cuſtoms, and to the principal officers of the cuſtoms in the out-ports.

This application made by the Envoy, ſhowed that the alarm of danger, from Poland, ſtill ſubſiſted on the Continent. Nevertheleſs, on the 30th of November, upon a petition of ſeveral merchants of London, trading to Hamburgh and Bremen, ſetting forth, "that there doth not appear to be the leaſt ſymptoms of an epidemic diſtemper within ſeveral hundred miles of either of thoſe places; that the linens imported *by the petitioners* are all manufactured in different parts of Germany, where there are not the leaſt ſigns of infection; and as all the Princes of the Empire, through whoſe territories theſe linens muſt paſs, have taken all poſſible precautions to cut off the communication with infected places; therefore praying that all ſhips from Hamburgh and Bremen, that have no rags or cotton wool on board, be not obliged to perform quarantine."

Agree-

BOOK V. Agreeably to this requeſt, the quarantine was immediately taken off.

It may be remarked here, that the Council muſt have proceeded upon very imperfect information, if the circumſtances relative to the places where the linens brought from Hamburgh are manufactured, the precautions employed by the German Princes, &c. ſet forth in the petition, were not known to them before; and the grounds of apprehenſion from that quarter, muſt have been ſlightly founded, if they were ſo readily removed by this repreſentation of the Hamburgh merchants.

The preamble to the order for quarantine ran thus: "It being "judged probable that the infection now raging in divers parts "of Poland, may be brought into this kingdom by means of "ſundry *commodities*, the *produce* of *thoſe places*, exported from "Hamburgh and Bremen." There was no ſuppoſition here of the plague exiſting within two or three hundred miles of Hamburgh, but that merchandiſe was brought to that city, from divers parts of Poland, where the plague then exiſted, and from thence might afterwards be exported to England. If this was not a fact, the Council proceeded upon miſinformation, when it extended the quarantine to Hamburgh and Bremen; if it was a fact, the ſame reaſons as before, for continuing it, ſtill ſubſiſted. At leaſt till further advices were received, from the ſame authority upon which the quarantine had been laid on; for as to the precautions of the German Princes againſt infection, the Privy Council cannot well be ſuppoſed to have been ignorant of them, no more than it can be ſuppoſed to have learned from the petition, that the infected places of Poland were ſeveral hundred miles diſtant from Hamburgh.

The petitioners took upon them to aſſert two facts, of which one, at leaſt, was out of the line of their correſpondence, and had no claim to be admitted upon their ſole authority. They

aſſerted that not the leaſt ſymptom of any epidemic diſtemper exiſted within ſeveral hundred miles of Hamburgh. A fact of this nature required ſome other ſupport than ſimple aſſertion, and indeed preſuppoſed a kind of enquiry, which it was very improbable had ever been made by the merchants, and which was not ſo much as pretended, in the petition. The other aſſertion, that linens imported by the petitioners were manufactured in different places of Germany, was more within their reach, and had a right to more credit. But it did not follow, from that declaration, that no goods were brought to Hamburgh and Bremen from the infected places in Poland, and from thoſe places might not be imported into England by other merchants than the petitioners. At any rate they had no colour of pretence for going beyond what they themſelves could anſwer for, and requeſting the quarantine might be taken off all ſhips from Hamburgh and Bremen, ſuch excepted as had rags and cotton on board. Strange as this requeſt was, the Council, as if till then entirely ignorant of the facts ſet forth in the petition, immediately granted it, with a reſerve only of the moſt ſlender of all ſecurities for the public ſafety, namely, the declaration on oath of the maſters of ſhips, many of whom are in the habit of conſidering cuſtom-houſe officers as infidels not morally entitled to truth.

In both the inſtances of 1770 and 1783, the Council ſeem to have adhered to one general rule, either to continue the quarantine for forty days, or at once to take it off altogether. In the caſe of the Hamburgh petition, the quarantine of particular veſſels, under certain well-atteſted circumſtances, might have been abridged: but a general exemption of all ſhips, in compliance with a petition of individuals, ſuppoſing (what muſt be ſuppoſed) that the Council had ſufficient reaſons at firſt for extending the quarantine to Hamburgh and Bremen, was unneceſſary, and inconſiſtent. In the caſe of the Edinburgh petition, the grain, conſiſtently with the uſual rules of quarantine, might have

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have been ſtarted and delivered; but the veſſel and crew ſhould have been obliged to perform a ſhort quarantine.

The caſes now produced are intended as inſtances of haſty deciſions of the Council, and are ſuppoſed to be owing to the hurry in which orders are expedited upon preſſing emergencies. The directions relative to the mode of purifying merchandiſe liable to retain infection, were probably conſtructed more deliberately; but, I conceive, they alſo require reviſal.

By the 12th clauſe of the ſtatute 26 George II. "all goods, ſpecified in any order concerning quarantine, imported;" and by the 15th clauſe, "all goods, liable to quarantine, ſhall be opened "and aired, in ſuch place and manner as ſhall be directed in "ſuch orders."

By the order of Council of October 5th, 1770; "all goods "liable to quarantine, ſhall be unpacked and aired, and ſo re"main a week; other than hemp and flax; paper or books; ſilk "raw, thrown, or worked; linen, cotton wool, cotton yarn, or "manufactured; wool, raw, or anywiſe wrought; feathers, gro"gram, or mohair yarn, human hair, goats hair, Carmenia "wool, carpets, camblets, burdetts, or other manufactures of "ſilk and cotton, kid ſkins, and ſkins in the wool or hair, ſpunges, "wine and oil in cheſts, thread ſtockings, goods packed "with ſtraw or cotton, ſtraw hats and bruſhes, matting, and ar"tificial flowers; which goods and merchandiſes ſo enumerated, "are to be opened, unpacked, and aired, and ſo remain for the "ſpace of a fortnight."

The order of Council of the 13th December, 1780, enumerates the ſame goods to be opened and aired, but with an exception, "unleſs his Majeſty ſhall think fit, by his order in Council, "to direct otherwiſe."

"The

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"The quarantine for forty days is to commence and be computed from the day each ſhip or veſſel ſhall come to anchor in the place appointed for performing quarantine, and not before."

In foreign Lazarettos, the quarantine commences and is computed, from the time the cargo is landed, and not before. The beginning to compute the quarantine before the hatchways of the hold are opened, can, with reſpect to the goods, be of no utility; and if one week, or a fortnight, be conſidered as ſufficient to purge the ſuſpected merchandiſe, the continuance of quarantine for forty days would ſeem to be ſuperfluous. But the terms preſcribed for the expurgation of goods by ventilation are certainly too ſhort, and the continuing the quarantine, after they are again repacked, is a hardſhip upon commerce, without promiſing any additional ſecurity to the public.

Again, the ordering ſhips into quarantine, and exempting the goods from being opened and aired, is another hardſhip upon the merchant, from which no advantage, as a defence againſt infection, can poſſibly be expected. A quarantine ſhould never be ordered, but upon ſtrong preſumptions of its expediency; and, without loſs of time in waiting for further directions from the Council, the ſuperintendents of quarantine ſhould be preinſtructed how to proceed. The opening and airing of part of the cargo, if the crew are in good health, ſhould be begun without delay. If the airing of the reſt ſhould afterwards be judged unneceſſary, the trial already made will be ſome ſecurity, and the ſhip need not be longer continued under reſtraint. On the other hand, if it be judged proper to air the whole cargo, ten days of the quarantine, in regard to ſome of the diſtant ſtations, will have elapſed uſeleſsly, and the remaining thirty days will not be ſufficient to air the whole cargo in ſeparate parcels. For almoſt in every inſtance, it will be impoſſible to bring the cargo on deck at once; and indeed, conſidering merely the weather in

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Britain, it is hard to conceive how infected goods can be properly aired on board the veſſel that brought them. If it be ſuppoſed that other veſſels may be employed for this purpoſe, like the hulk, or floating Lazaretto at Standgate Creek; it may be aſked, if all, or any of the other twelve ſtations, appointed for the performance of quarantine, in 1780, were provided with ſuch conveniences; or, had they been found neceſſary, was it in the power of the Council to have procured them, within the time limited for quarantine, ſo as to be of ſervice, without prolonging the reſtraint of the ſhips.

Upon the whole, there appears reaſon for thinking, that the management of quarantine ſhould be entruſted to a Council of Health, diſtinct from the Privy Council. Such a board would be competent to enter into a number of details and diſcuſſions, which the Privy Council can rarely find time for. It would be enabled, upon due enquiry into the commercial intercourſe of the different ſtates on the Continent, ſo far as concerns their trade in merchandiſe ſuſceptible of infection, to eſtabliſh rules adapted to their various ſituations. Neither influenced by political intrigue, nor miſled by ſpecious repreſentations of intereſted individuals, it would enter into a liberal and extenſive review of the ſubject. Permanent regulations would be eſtabliſhed on ſolid grounds, meaſures would be concerted and provided for occaſional exigencies, and the requiſite diſpoſitions would be made, for carrying the preconcerted meaſures effectually into execution. But buſineſs of this kind ought not to be undertaken when danger impends, and reſolutions muſt be paſſed immediately; it can only be tranſacted with ſucceſs, when there is full time to inveſtigate, and to deliberate.

It is not to be denied, that, as matters ſtand at preſent, quarantines, without being ſo ſecure a defence as is commonly imagined, are a certain heavy tax upon commerce; the benefit they

promiſe to the ſtate is very precarious, the detriment to the merchant is real. CHAP. VII.

If, on one hand, ſuch a Council, inflexible in well-founded reſolutions, would be leſs acceſſible to private ſolicitation; on the other, the merchant would know better on what he had to depend; he would be leſs diſpoſed to ſpeculate by wavering orders, and would have leſs to fear the influence of powerful interceſſion obtaining unequal indulgencies. The inevitable hardſhips upon commerce, in ſuſpected times, would be common to all; and would never be impoſed, but upon ſolid preſumptions of neceſſity.

CHAP. VIII.

Temporary improvements in the preſent mode of quarantine propoſed—Conveniencies for the reception of infected ſhips, ſo that they may be relieved without delay, abſolutely neceſſary—Infected goods ſhould be purified on ſhore—Prattique houſes in ſome of the out-ports propoſed—Goods liable to quarantine ſhould be opened—The fewer the places appointed for the performance of quarantine the better.

TILL ſuch time as proper Lazarettos be eſtabliſhed in England, it will be doubly neceſſary to enforce the regulations in Turkey, and to reform the bills of health. No patent from Syria ſhould be deemed clean, that does not declare the place to have been free from the plague, at leaſt, three months[1].

As much danger might ariſe from the crew and cargo of a veſſel, coming from an infected place, being ſhipwrecked

[1] See the preceding book, chap. vi.

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on the coaſt, pilots, when required in the Channel to conduct the ſhip, ſhould be obliged, if neceſſary, to go on board the ſhip itſelf[z], but (in that caſe) it is not neceſſary the quarantine of the pilot ſhould be ſo long as that of the crew. The pilot boat ſhould be provided with a rope, to heave into the ſhip, that ſhe may not be under the neceſſity of taking a rope from within board. No letters, or parcels of any kind whatever, ſhould be received into the boat. All other perſons ſhould be prohibited, under ſevere penalties, from going on board the ſhip, except ſhe be in diſtreſs for hands, in which caſe the additional hands ſhould perform the ſame quarantine with the reſt of the crew.

All ſhips from Turkey, whereſoever bound, who have not the plague actually among the crew, or have not loſt men by it on the paſſage, ſhould repair, if poſſible, without communicating with any other port, to Standgate Creek.

Some ſmall temporary buildings on ſhore would ſeem to be neceſſary there, not for the reception of goods, but for the accommodation of paſſengers, as well as for any of the crew who may happen to be ſick. Theſe muſt be encloſed and guarded in the manner of a Lazaretto. The hoſpitals for the ſick ſhould be diſtant from the lodgings for paſſengers, and in place of the form of wards, ſhould be diſpoſed into ſmall ſeparate chambers. A part ſhould be allotted for perſons with ſuſpicious ſymptoms, who fall ſick during the unlading of the veſſel. There ought to be a ſmoking room, and a laundry. It will be proper alſo to have a magazine for the powder of the ſhips.

[z] "No pilot ſhall go on board any ſhip or veſſel obliged to perform quarantine; "in order to conduct the ſame into any port or place, but ſhall perform ſuch ſervice in ſome other boat or veſſel, which boat or veſſel ſhall keep as much to the "windward of the ſhip or veſſel, ſo to be conducted, as poſſible; and if any pilot "or other perſon ſhall go on board, ſuch ſhall perform quarantine in like manner "as any perſon coming in the ſhip or veſſel ſhall be obliged to perform the ſame." London Gazette, Dec. 19, 1780.

Cloſe

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Close to the water-side, there should be a prattique house; and near to that, a quay with barriers, as before described[3], for delivering provisions to the respective ships, each of which should retain one boat, for transporting provisions and other necessaries. The superfluous boats of the ships should be purified, and secured on shore till the end of the quarantine. The mode formerly, and perhaps still, practised, of receiving provisions by means of boats from the shore, is liable to many abuses.

Passengers, with their ordinary baggage, should be brought on shore; their trunks, &c. fumigated and aired, and the length of their quarantine regulated according to circumstances explained before. The obliging passengers to perform a quarantine of forty days, would be unnecessary, if there was a place for their reception on shore, so that they might immediately, on their arrival, be separated from the cargo, and the crew.

The pilot also should be landed, as soon as the vessel is moored, should have fresh clothes ready for him at the Lazaretto, and, after being fumigated, washed and shaved, perform a quarantine of ten days, in a chamber by himself, without communication with the passengers, or with others in quarantine. But if the hold has been opened, while the pilot remained on board, he should, in that case, be obliged to perform the same quarantine with the passengers.

The goods are supposed to be purified on board the hulk; and must be subjected, as nearly as possible, to the same treatment as on shore. Might not fumigation be attempted there[4]?

Smuggling goods from the hulk, may perhaps be more easily practised than from a Lazaretto. But the guard-boats should

[3] See before, chap. i. and ii.

[4] See before, chap. v.

be

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be authoriſed to fire into any boat approaching the hulk, or any of the veſſels in quarantine, excepting ſuch boats as carry the ſanction of the health office. When goods are diſcharged from the hulk, it ought to be well fumigated, before taking in others [5].

Should a ſhip happen to loſe any of the crew, by the plague, in the courſe of the paſſage, or arrive in the Channel with perſons actually ſick of it, inſtead of proceeding to the river Thames, ſhe ſhould, without delay, repair to the place deſtined for the reception ſolely of infected ſhips. Whether this be St. Helen's Pool, or elſewhere, it will be abſolutely neceſſary, for reaſons already aſſigned, that there ſhould be a temporary Lazaretto as well for paſſengers as for the ſick.

[5] "We are of opinion (ſays Lind) that beſides the materials of wool, cotton, "linen, and apparel almoſt of every ſort, the ſeeds of an infection are ſtrongly ad- "heſive to many other ſubſtances in infected chambers, and other places. Beams "of wood, as in ſhips, chairs, bedſteads, and other furniture, as alſo various "utenſils uſed about the ſick, may doubtleſs become tainted. This has been ſuffi- "ciently evinced by the foregoing relation of the courſe of the infection in the "fleet—When ſhips are to be put into the dock, it is uſual to remove the men out "of them into hulks in the harbour. Theſe hulks are old ſhips, containing, as "one would imagine, nothing but decayed timbers, capable of receiving or retaining "infection. They may be compared to ſuch old uninhabited houſes as have the "windows broken, or, at leaſt, at all times kept open, and where the wind, cold, "and rain have the freeſt acceſs. Not long ſince, a part of the company belonging "to the America, having ſlept in one of thoſe hulks, I remarked ſeveral of them "were afterwards ſeized with fevers of a low and bad kind; while the other part of "the crew, who ſlept on board their proper ſhip, were affected only with ſlight "colds. I have indeed frequently met with inſtances of bad fevers, which have been "got from thoſe cold, raw hulks." Lind on Infection, p. 222. 225.

Doctor Mackenzie, of Conſtantinople, has a curious remark on the difficulty of extirpating infection—"Comte Caſtellane (ſays he) had, for three years running, "perſons attacked in the ſame manner, in the months of July and Auguſt, notwith- "ſtanding all poſſible precaution uſed in cleanſing the room, and even white- "waſhing it. At laſt by my own advice to his Excellency, he built a ſlight counter- "wall, ſince which there has been no accident in that room, now five years ago." Phil. Tranſ. vol. 54.

As

As in all probability the arrival of ſhips from Turkey, under ſuch circumſtances, would happen very ſeldom, it might be unneceſſary to have a full eſtabliſhment of officers conſtantly reſiding at the foul Lazaretto. When no ſhip was in port, one head officer, with ſome guardians, might be ſufficient; aſſiſtants might be ſent from the other Lazaretto, when occaſion required.

The purification of the cargo, on board the ſhip, I conceive to be impracticable; and there are many objections to the attempting it in the hulk. The preferable way would be to land the goods, if a temporary encloſure, with ſheds, could be contrived ſufficiently ſecure againſt ſtealing and ſmuggling. The approach of all fiſhing boats, or others, ſhould be prohibited under pain of death; and if any ſuch attempt be made in the night, the centinels ſhould be empowered to fire upon them. Perhaps a ſmall battery might be of ſervice.

The goods ſhould be landed there, with the uſual precautions, in a lighter provided by the Lazaretto. All other regulations ſhould be maintained rigorouſly, and the ſhip ſhould perform three *ſereines*, one of ſeven, and two of five days. Should the greater part of the cargo be cotton, and, in the courſe of unlading, any perſons happen to be infected, it may perhaps be more adviſable to deſtroy the whole, than to truſt to expurgation, under the defect of proper and ſecure conveniencies.

Accommodations of the kind now mentioned might poſſibly be erected at a trifling expence; but as a place for the reception of ſhips, actually infected, would at all times be deſirable, even after the eſtabliſhment of a regular Lazaretto, it might perhaps be better at once to fix on a proper ſituation, and to immure a ſmall extent of ground, within which, ſheds or other temporary conveniencies might be raiſed, till more ſubſtantial could be erected.

This foul Lazaretto ſhould be in a healthy, ſolitary ſituation; remote from any large town, and even at ſome diſtance from a village, or the high road.

Beſides theſe two principal Lazarettos, there might be, at one or two of the out-ports, a prattique houſe, for the convenience of ſhips liable to quarantine, where they might be ſupplied with water, or other neceſſaries, in their way to the Lazaretto. Theſe would require no more than a ſmall encloſed quay, with a barrier, from which water and proviſions might be delivered to the ſhip's boat, in the ſame manner as at the Lazaretto. After receiving which, the ſhip ſhould forthwith be obliged to proceed to one or other of the Lazarettos, according to the circumſtances of the crew on board, ſubmitted to ſome public perſon of note, reſident in or near the place, and appointed by authority to act as magiſtrate of health. Where the caſe appears doubtful, or not comprehended under any of the proviſional orders, the ſhip might be permitted to remain at anchor, well guarded, till an anſwer be received from the Council.

This ſeems to be all that is proviſionally neceſſary, ſo far as the Levant trade is concerned; for though it might better ſuit the conveniency of each trading town, to have their ſhips perform quarantine nearer home, yet ſo few of thoſe towns, beſides London, carry on a direct trade with Turkey[6], that it is certainly more conſiſtent with the public ſafety, that quarantine ſhould be performed in one or two places, under the inſpection of experienced officers, than in ſeveral different parts of the kingdom, where ſhips, from ſuſpected places, do not arrive perhaps once in two or three years.

The caſe may be different when alarm is ſpread from the Continent, the trade with which is more generally diſtributed among

[6] Porter's Obſervations, p. 392.

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the Britiſh ports; but even then, the ſhips ordered into quarantine, had perhaps better be brought as much together as poſſible, in ſome commodious ſituation, where they may more effectually be watched and directed, than in places remote from the reſidence of the Council of Health.

In December, 1780, on account of the plague in the Ukraine, a quarantine was ordered for ſhips from the Baltick, that is from Dantzick, the ports of Ducal Pruſſia, Pomerania, &c. and, for the performance of this quarantine, ſeven or eight different places were appointed in England, four in Scotland, one in Jerſey, and one in Guernſey, in all thirteen.

So many places can hardly be ſuppoſed properly provided for the reception of ſuſpected ſhips, and far leſs for the reception of perſons who may happen to be infected during the quarantine. If this latter proviſion be wanting, ſhould the plague break out among the crew, it might ſpread fatally; or, if the ſick were landed, it might pervade the neighbouring villages. For this reaſon, were it practicable to diminiſh the number, a few places might more eaſily be ſoon put into a ſuitable condition, for the reception of the ſick. This circumſtance ſeems to be indiſpenſably neceſſary, for if the ſick are not ſeparated from the ſound, the crew, from the dread of infection, will with great difficulty be confined on board; and the greater is the number of unprepared places thus left defenceleſs, the greater will be the danger.

By the ſame order of quarantine, all ſuſceptible goods were to be opened, unpacked, and aired, for one week; other than hemp, flax, paper, ſilk, linen, cotton wool, cotton yarn, or manufactured wool, &c. &c. which were to be aired for a fortnight, unleſs his Majeſty, in Council, ſhould think fit to direct otherwiſe. The quarantine is fixed indiſcriminately at forty days, commencing from the day the ſhip comes to anchor.

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It may be again remarked here, that if it depends upon a ſubſequent order of Council, whether the goods are to be unpacked or not, ten days, or more, of the quarantine will have elapſed, before it be known whether the cargoes of ſhips, arriving in the remote parts of Britain, are to be aired or not, which will render quarantines, in point of ſecurity, very uncertain.

But if the goods are to be unpacked and aired on ſhore, on an open beach, they will be ill protected againſt thieves and ſmugglers. If on board of ſhip, it muſt be done in parcels ſucceſſively, and theſe will either be very imperfectly ventilated, or the forty days will expire before the airing be finiſhed. Formerly at Marſeilles, the *ſereines* were performed on board of ſhip, not in the Lazaretto; but the practice being found ſometimes to endanger the overſetting of the veſſel, was for that, amongſt other reaſons, aboliſhed[7].

On the ſuppoſition of the ſuſceptible goods, of either claſs expreſſed in the order of Council, containing ſeeds of contagion, will a week's ventilation in the one caſe, or a fortnight's in the other, be ſufficient to diſlodge or deſtroy them? If ſo, it were unneceſſary to prolong a ſhip's quarantine to forty days, as ſhe might be unloaded, and her cargo aired, in twenty or twenty-five.

If we ſuppoſe, for a moment, the plague had diſcovered itſelf in any of theſe ſhips from the Baltick, ill prepared as, I apprehend, we were for defence, what a ſtrange confuſion would it have occaſioned. But if, carrying the idea further, it be ſuppoſed to have manifeſted itſelf (which is poſſible) in ſeven or eight of the thirteen places, in Britain, deſtined for the reception of veſſels liable to quarantine, how much more would the general conſternation have been increaſed, and what can be reaſonably expected from the wiſeſt orders of a Council of Health, haſtily iſſued, where

[7] Memoire ſur le Bureau de la Santé, p. 28.

no

no regular plan has previouſly been eſtabliſhed, to facilitate the carrying them into execution: the opportunity of acting may be loſt, before the directions of the Council arrive.

As to the continuing a ſhip forty days in quarantine, and at the ſame time diſpenſing with opening and airing the merchandiſe, it is difficult to conceive what good purpoſe is propoſed. If the cargo be ſuſpected, it ſurely can anſwer none; if it be not, and the quarantine is intended for perſons on board, it might ſafely be abridged one-half.

Upon the whole, ſo far as I have been able to learn, the preſent mode of performing quarantine, in Britain, is extremely defective. The captains and mariners who have been in the Mediterranean, comparing it with the practice of foreign Lazarettos, conſider it in a light little better than that of an oppreſſive empty form. The officers entruſted with the execution of ſuch regulations as there are, too often act as if they entertained no better opinion of them; and, between both, the public ſafety is abandoned to chance.

I may, perhaps, in ſome things relating to the preſent practice of quarantine in England, have been miſinformed; in others, I may have erred for want of fuller information: but as there can be no doubt of its appearing, upon enquiry, that many abuſes do actually exiſt, and that adequate proviſion has not been made for probable contingencies, it ſurely will be adviſable not to defer the correction of the one, and the concerting preſervative meaſures againſt the other, till the actual exiſtence of the evils to be prevented, may render the beſt meaſures precarious or abortive.

A

TREATISE

OF THE

PLAGUE.

BOOK VI.

Of the Police in Times of the Plague.

CHAP. I.

Some account of the early orders againſt infection of the plague—Theſe orders require reviſal—Remarks on the quarantine acts of James the Firſt, in 1603, and George the Firſt, in 1720—Obſervations on the meaſures recommended by Doctor Mead, in his Diſcourſe on the Plague—A remarkable proteſt of the Lords in 1720.

CHAP. I.

A Strict obſervance of the laws and regulations of quarantine, where proper Lazarettos are eſtabliſhed, has been found, in general, an effectual defence againſt the plague being brought in by foreign commerce. But as the execution of theſe laws depends on the fidelity and vigilance of ſubordinate officers, who muſt unavoidably be truſted, as well as on the prudence and compliance of the perſons performing quarantine, it is no wonder the

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the precautions of the Legiſlature, however wiſely concerted, ſhould ſometimes have failed of ſucceſs[1].

As the Maritime States of the Mediterranean furniſh ſufficient proof of the utility of Lazarettos, ſo, on the other hand, they have produced examples of the plague inſinuating itſelf into countries where they had long been eſtabliſhed. But, in almoſt all ſuch inſtances, the cauſes of failure have been traced to negligence on the part of thoſe entruſted with the care of the public health, or to clandeſtine infraction of the regulations of quarantine[2].

In the ſixteenth and ſeventeenth centuries, Britain was ſeveral times viſited by the plague. The orders and regulations reſpecting the infected, ſeem to have been iſſued, in royal proclamations, or, by the municipal officers, in towns; and in the country by the juſtices of peace, but all under the ſanction of the King, in Council. How it was managed in times ſtill more remote, does not appear, but ſuch orders were iſſued by Queen Elizabeth; and in the plague at London, in 1592, the College of Phyſicians publiſhed their medical advice to the infected, which it is probable they had done before, on ſimilar occaſions, from about the middle of that century[3].

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[1] Muratori Governo Politico, chap. i. p. 10.

From the remarks made by the late Mr. Howard, in his voyage from Smyrna, the negligence prevalent in the Venetian ſhips, is ſuch, as renders it matter of ſurpriſe, that the plague is not more frequently brought into Europe.

[2] For the introduction of the plague at Marſeilles, and at Meſſina, ſee book iii. p. 210. and book iv. p. 327.

[3] In the plague of 1500, and 1513, the Phyſicians had not, I believe, as yet been incorporated.

The early attention of government to the preventing infection, appears from a clauſe in an act of Henry the Eighth, in 1540, by which barbers in London are prohibited from uſing ſurgery, and ſurgeons from uſing barbery, and the reaſon

The orders iſſued, in 1603, by his Majeſty, in Council, againſt the infection of the plague; the advice of the College of Phyſicians; and the orders conceived and agreed to be publiſhed by the Lord Mayor and Aldermen, by direction of the Privy Council[4]; were probably much the ſame with the orders uſually iſſued, on the like occaſions, in former reigns: they, at leaſt, were always republiſhed, with very little variation, in the ſubſequent plagues, in 1625, 1636, and 1665[5].

Since the year 1666, Britain, through the mercy of Divine Providence, has not been viſited by the plague; though ſeveral times greatly alarmed by the diſtemper raging on the Continent, particularly at Dantzick, in 1710; at Marſeilles, in 1720; and at Meſſina, in 1743; on all which occaſions, except in 1720, the attention of Government was more directed to the prevention of infection being brought from foreign parts, than to the framing internal regulations for the country, in caſe of its being infected.

The orders againſt the infection of the plague, publiſhed by his Majeſty, and his Privy Council, the 30th of July, 1603, conſiſt of a number of articles, and ſeem to have been drawn up with great care.

aſſigned is, "that perſons uſing ſurgery, often take into their cures and houſes "ſuch ſick and diſeaſed perſons as been infected with the peſtilence, great pox, and "ſuch other contagious infirmities—do uſe or exerciſe barbery, as waſhing or "ſhaving, or other feats thereunto belonging, which is very perilous for infecting "the King's liege people, reſorting to their ſhops and houſes, there being waſhed "or ſhaven."

[4] See the orders of Queen Elizabeth, in 1592; and, A Defenſative againſt the Plague, by Simon Kellway, Gent. Lond. 1593.

[5] Certain neceſſary Directions, &c. of the College; ſundry Orders of his Majeſty; Select Statutes, &c. Lond. 1636.

Collection of very valuable and ſcarce Pieces, relating to the laſt Plague, in the Year 1665. Lond. 1721.

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The firſt four articles regard the meetings of the juſtices; the diſtribution of the limits; the procuring exact intelligence of the places infected; the making proviſion for the maintenance of the poor; and providing ſearchers to view the bodies of the dead. The fifth article regards the ſhutting up infected houſes, whether in towns or in the country: the term of quarantine being ſix weeks, and infractions of it puniſhed by impriſonment in the ſtocks. Infected houſes are ordered to be marked; and the ſigns of infected inns, and alehouſes to be taken down. The ſixth, directs the mode of diſtributing charity. By the ſeventh, attendants are provided for perſons in quarantine. The eighth, orders proviſion to be made in every ſhire-town, of preſervatives, and remedies. The ninth, requires miniſters, church-wardens, &c. to deliver in to the juſtices, once a week, an account of the infected perſons who die, or recover. The tenth, directs ſeparate burial places in each pariſh, for ſuch as die of the plague. By the eleventh, the juſtices of the county are ordered to aſſemble once in three weeks, to examine ſtrictly if their orders have been duly carried into execution; and to make their report to the Privy Council. By the twelfth, juſtices of the hundred are to meet once a week, to enforce regulations, and to reform abuſes. The thirteenth, orders the burning, or the fumigating infected ſtuff, reimburſing the loſs of the ſtuff deſtroyed, to ſuch whoſe circumſtances require it. By the fourteenth, the juſtices are inveſted with diſcretionary power to frame ſuch other orders as they may judge convenient, communicating them, at the ſame time, to the Council; and are empowered to puniſh breaches of their orders, by impriſonment; and, in heavier offences, to refer the puniſhment to the Council. The fifteenth, empowers the juſtices, where their number happens to be too ſmall, to chuſe aſſiſtants. The ſixteenth, interdicts eccleſiaſtics, and others, from publiſhing opinions againſt the notion of the plague being contagious: "as holding it a vain thing to forbear to reſort to the "infected, and that it was not charitable to forbid it; becauſe "no perſon ſhall die but at their time prefixed." The publiſhing

ing ſuch dangerous doctrines, was puniſhed, if an eccleſiaſtic, by reprehenſion by the biſhop, or ſuſpenſion; if a layman, by impriſonment, in caſe of perſiſting after admonition.

But theſe, and other regulations of the civil magiſtrate, were ſo often diſregarded, or violated[6], that in 1604, the year immediately ſucceeding a plague at London, it was found neceſſary for the Legiſlature to interfere, (I believe for the firſt time) and to ſupport ſome of them by an expreſs act of parliament.

By this ſtatute it is enacted, [7] "that if any perſon infected "with the plague, or dwelling in any infected houſe, be com- "manded by the mayor, conſtable, or other head officer of his "town or vill, to keep his houſe, and ſhall venture to diſobey "it; he may be inforced, by the watchmen appointed on ſuch "melancholy occaſions, to obey ſuch neceſſary command: and "if any hurt enſue by ſuch inforcement, the watchmen are "thereby indemnified. And farther, if ſuch perſon ſo com- "manded to confine himſelf goes abroad, and converſes in com- "pany, if he has no plague ſore upon him, he ſhall be puniſhed "as a vagabond, by whipping; and be bound to his good beha- "viour: but if he has any infectious ſore upon him uncured, "he then ſhall be guilty of felony."

This act, of James the Firſt, did not paſs without oppoſition[8], and its continuance was limited until the firſt ſeſſion of the next

[6] "And foraſmuch as divers perſons infected with that diſeaſe, and others inhabit- "ing in houſes and places infected, as well poor people and unable to relieve them- "ſelves, that are carefully provided for, as others which of themſelves are of ability, "being commanded by the magiſtrate or officer of or within the place where the "infection ſhall be, to keep their houſes, or otherwiſe to ſeparate themſelves from "company for the avoiding of further infection, do notwithſtanding very danger- "ouſly and diſorderly miſdemean themſelves." Preamble to the Act.

[7] Blackſtone's Comment. vol. iv. book iv. chap. 13.

[8] The bill was preſented on the 11th of May, 1604, and on the 18th, committed to a Committee of twenty-five members. On the 25th, having been reported with a

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parliament. But it was further continued by ſubſequent acts; and in the ſixteenth year of Charles the Firſt, 1640, "from "thenceforth until ſome other act of parliament be made "touching its continuance or diſcontinuance."

It appears from the Journals of the Houſe of Commons, that in the year 1665, the plague then raging at London, a Committee, on the 11th of October, was appointed to inſpect this act, and to prepare and bring in a bill to ſupply its defects; and to provide remedies to prevent the ſpreading of the contagion. The bill after being twice read, on different days, was, on the 24th, ordered to be engroſſed, with amendments. It was paſſed by the Commons; but the Lords, on the 30th, having returned it with ſome amendments, a conference was deſired. The day following, the conference was reported; and the queſtion being put, to adhere to the former votes, was reſolved in the affirmative. The ſeſſion terminated the ſame day, and the matter never having been reſumed ſince, the ſtatute of James the Firſt remains ſtill in force.

The orders againſt the infection of the plague, made in old times, though defective in ſome reſpects, and in others liable to objection, muſt be allowed to contain many excellent articles. It were therefore to be wiſhed, that a reformation ſhould be attempted, by perſons who would enter deliberately into a review of the former practice in England, as well as in other countries, and who, by their local knowledge of Britain, and acquaintance with the quarantine, and Poor's Laws, may be ſuppoſed qualified for ſuch an undertaking.

vacat, as not fit to be retained, a new bill was prefented, which was read the next day; and, on the ſecond reading, the 5th of June, was committed to the former Committee. On the 14th the bill was reported with amendments, and, upon the queſtion, was ordered to be engroſſed. It paſſed two days after, but not without oppoſition. The Lords made ſome amendments, reſpecting the exemption of the Univerſities, which were agreed to.

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CHAP. I.

The Italian ſtates afford ſeveral inſtances of the ſucceſs of a vigorous exertion of the police; and though all the meaſures adopted there, or in other foreign countries, cannot be tranſplanted into a free government, yet ſome of them can: whilſt others, perhaps, might be ſo modified as to be admitted, without offence to the popular notions of liberty, prevalent in the Britiſh dominions.

Conſcious of my own inability to undertake the propoſed reformation, it is my intention, in the following chapters, to reſtrict myſelf to ſome of the more material points relating to the police, in times of the peſtilence: not directly in reference to any particular town, but in a general view; for however the expedience of meaſures may be admitted, abſtractedly, their application muſt always be regulated by local circumſtances.

What is to be offered on theſe heads, being chiefly the reſult of various reading, references will occaſionally be made, to the authors from whom I have borrowed aſſiſtance; and the late Dr. Mead, ſo far as I know, being the principal Engliſh writer on the ſubject, ſome preliminary remarks on his book, naturally preſent themſelves. It is with unfeigned pleaſure I agree, in ſeveral points, with that eminent man, and with reluctance that I find myſelf obliged to differ from him, in others. But, in ſubjects of this kind, variety in opinions muſt be expected; and ſuch are likely to be moſt unpopular, which favour the laying mankind under unuſual reſtraints.

Dr. Mead, after obſerving "that the management in former "times neither anſwers the purpoſe of diſcovering the beginning "of the infection, nor of putting a ſtop to it when diſcovered, "thinks other meaſures ought certainly to be taken[9];" and then propoſes ſuch as to him appear the moſt reaſonable and ad-

[9] Mead's Short Diſcourſe, p. 96. edit. 7.

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viſable. I ſhall briefly conſider theſe, in the order they preſent themſelves in the ſecond chapter of his Diſcourſe on the Plague: ſuppoſing the book lying before the reader.

I concur entirely in the Doctor's opinion of the propriety of eſtabliſhing a Council of Health [10].

It is undoubtedly of the utmoſt importance, that the plague ſhould be diſcovered early in its beginning. But it does not appear that more effectual meaſures are propoſed for this purpoſe, than thoſe before in practice. The appointing men for ſearchers, inſtead of women, ſeems not a material improvement; at leaſt, the notion of decency in England, would require female ſearchers for the female ſex.

If the articles concerning ſearchers and ſurgeons, contained in the orders for health by the mayor and aldermen, be conſulted, it will appear that the want of timely diſcovery, ſo far as regards ſearchers, was not to be imputed to a defect in the meaſures concerted for that purpoſe, ſurgeons having been appointed to aſſiſt the ſearchers occaſionally. It is true, that in the public orders for health, in 1636, as well as in 1665, alluſion is made to abuſes "heretofore in miſrepreſenting the diſeaſe," to prevent which, aſſiſtant ſurgeons were appointed. But as theſe abuſes proceeded from other cauſes, beſides ignorance [11], they will not be prevented, merely by the ſubſtitution of male inſtead of female ſearchers.

Nor were ſearchers the only inſtruments employed, in the old orders, for procuring early intelligence. Examiners were appointed in every pariſh, and the maſter of every houſe, upon any perſon in the family falling ſick, was required to give imme-

[10] See before, book v. chap. viii.

[11] Reflections on the Bills of Mortality. Collection of Scarce Pieces, p. 54.

diate

diate notice to the examiners. If therefore the management, in former times, did not anſwer the purpoſe of diſcovering the beginning of infection, it was not for want of wiſe regulations, but owing to the not rigorouſly carrying them into execution; and without reviving moſt of them, and providing againſt ſimilar infractions, in future, it is to be feared the mere offer of a reward for diſcovery will not prove ſufficient.

The removal of the infected family, and the ſeparation of the deceaſed from the healthy, though allowed to be proper, is by no means a new practice in England, or uncommon in other countries. Indeed, perſons infected, or dwelling in the ſame houſe with thoſe in the plague, were obliged to confine themſelves at home, when required ſo to do by the magiſtrate. But this ſevere reſtriction, was modified by the orders for health, iſſued by the Lord Mayor and Aldermen, by which, perſons infected were permitted to be removed to the peſt-houſe, to a tent, or to ſome other houſe; and perſons who poſſeſſed two houſes of their own, were at liberty either to remove the ſick, or the ſound, to the other houſe, abſtaining from further communication [12]. The quarantine for the ſound, in this caſe, was one week, at leaſt; which certainly was too ſhort.

The College in their advice, in 1636, do not urge the removal of the ſick, but, ſuppoſing it practiſed, think it ſhould not be done without permiſſion of the overſeers, &c. and though the patient do not die, recommend the infected houſe to be ſhut up forty days, after his recovery. In 1665, an addition is made to this article, "or rather remove them all to the peſt-houſe [13]." By which it cannot be meant that all were to be removed to the ſame place, which would have been the expoſing them to more danger than if left in their own houſes; becauſe the ſame article expreſsly aſſerts, that means are to be preſently uſed to preſerve

[12] Orders for health. Article, "None to be removed, &c."

[13] Advice of the phyſicians, article 6.

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the ſound as well as to cure the infected; and, in their earlier orders, regarding men or goods from foreign places infected, two places for entertainment were to be provided, "one for the ſound, "and another for the infected[14]," which no doubt was alſo the caſe in regard to peſt-houſes.

Doctor Mead very juſtly reprobates the cuſtom of ſhutting up the ſound and the ſick in the ſame houſe[15], and inſtead of barely permitting the removal of the ſick, adviſes their removal to be enforced, at the beginning, by the magiſtrate's authority[16]. This precept, of removing the infected from their houſes, by force, is the moſt material thing that is new in the Doctor's rules, with reſpect to England. In regard to foreign countries, in Italy in particular, the practice will probably appear to have been the ſame as that he recommends, and the inſtances he produces from that country, as attended with extraordinary ſucceſs, "whenever ſimilar meaſures "happened to be put in practice[17]," are rather inſtances of the method uſually purſued there, than of extraordinary or accidental exceptions from it.

But the removal of the ſick is reſtricted to the very beginning, while their number is ſmall; for when the contagion, by that means, is not ſtopped, "and has ſpread into all quarters, the "continuance of the practice ought utterly to be condemned[18]."

I can conceive no reaſon for condemning the continuance of the practice, except that the crowding thoſe who are removed into hoſpitals be ſuppoſed a neceſſary conſequence, and that it is impoſſible to render hoſpitals ſafe, or commodious receptacles for them; both which circumſtances will admit of doubt. If preparations have not

[14] 1636.
[15] Mead, p. 92.
[16] Ibid. p. 98.
[17] Ibid. p. 101.
[18] Ibid. preface xix.

been

CHAP. I.

been too long deferred, hoſpitals may be prepared, roomy enough for the reception of conſiderable numbers of the ſick, who will be more eaſily and better attended there, than they could poſſibly be in their own houſes, diſperſed in diſtant parts of the town. When the diſeaſe, in large towns has ſpread into all quarters, the expedient of removing the ſick, becomes, on many accounts, much more difficult; but ſo far as it can be carried into execution, eſpecially with regard to the poor[19], it muſt always be of ſervice, by leſſening the number who are to be attended in the town. The practice, in itſelf, can never be condemned, though from the condition of the times, it may, to ſo great an extent as could be wiſhed, become impracticable[20].

[19] M. Du Pont, at Toulon, in 1721, obſerves, that at firſt the infected poor, whilſt the number was inconſiderable, were treated in their own houſes, but, in the ſequel, it was found abſolutely neceſſary to tranſport them to hoſpitals. "Si cela "ne ſe faiſoit pas de même, comment pourroit on ſuffire pour les faire panſer chez "eux? On l'a fait à Toulon tandis que le mal n'y a pas été violent, & pendant les "premiers jours de la quarantaine; mais à la fin on connut l'impoſſibilité de con- "tinuer à faire panſer les pauvres gens chez eux qui empeſtoient tous ceux de la "maiſon & tout y'eſt mort peu à peu." Traité de la Peſte, p. ii. p. 138.

[20] A remark of Orræus, in his deſcription of the plague in Ruſſia, in the years 1770 and 1771, deſerves a place here.

"Utut nempe æquum imo neceſſarium in exordio luis, judicabatur, infectos et "horum contubernio utantes domeſticos, quamvis ſanos a communione reliquo- "rum civium arcere, & domos eorum, in quibus nihil non ſuſpectum erat, claudere, "ne contagium ultra ſerperet; plebs tamen, calamitati huic imprimis obnoxia, "cautionem hanc, quam rigoroſe ſummum regimen exequi ſolebat, in tantum ex- "horruit, et tanto odio tulit, ut non ſolum infectos ſuos, ſed mortuos ipſos, non "obſtantibus pœnis, in contravanientes, infligendis, quovis modo celaret. Quampri- "mum vero licentia domi permanendi concederetur, et non niſi pauperrimi, vel qui "ipſi haud reluctarentur peſtiferi, in noſocomia ablegarentur, tota facies rerum "extemplo mutata fuit; nam præter pacatiorem populi animum inde obtentum, de- "nunciationes nunc ſpontaniæ et fere univerſales fiebant; hinc infectis in ipſis mali "incunabulis opem ferre licebat, & lues evidenter imminui incepit." Orræi Deſcript. Peſtis, p. 130.

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As to the diſorders committed in peſt-houſes, for which the authority of Diemerbroeck is cited[21], (and unhappily many more inſtances, of the ſame kind, might have been produced) they are the conſequences of crowding the hoſpitals beyond the power of proper ſuperintendence; of committing the ſubordinate offices to diſhoneſt perſons; or of the anarchy that often takes place, on the death of the ſuperintendents, and other ſervants of the houſe. But the abuſes alleged are not ſolid objections to peſt-houſes; they ſometimes admit of remedy, and may often, by early precaution, be prevented.

I cannot therefore help thinking, that the removal of the infected, or their ſeparation from the ſound, wherever it is practicable, muſt at all times be of ſervice. I muſt alſo diſſent from the following precept, mentioned in the Doctor's preface. "As "ſoon as ever the ſick are grown numerous, I adviſe, that they "be left in their houſes, without any of thoſe unmerciful re-"ſtraints heretofore put upon them, and the families they be-"longed to[22]."

The ſeparation of the healthy from the infected, ſo neceſſary in the beginning, for the extinction of the plague, is no leſs neceſſary in the ſubſequent ſtages, to reſtrain it from ſpreading. It is an object never to be loſt ſight of, as long as the police retains any means of exertion. The ſhutting up the healthy with the infected, to periſh miſerably together, was an inhuman practice[23], and muſt have proved deſtructive to many families. But

The practice of removing infected families from their houſes, may, no doubt, induce many to conceal the diſtemper, but the permitting them to remain, without ſeparation, by ſpreading the infection, will do harm not to be compenſated by an early application of the ſick for medical advice. If the diſtemper evidently decreaſed after the reſtriction was taken off, it probably was in the decline of the ſeaſon.

[21] Mead, pref. p. xvii.

[22] Ibid, p. xx.

[23] Ibid. xvi. p. 92.

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what would be the conſequence of not only allowing them to live promiſcuouſly, but even of permitting the ſound to walk about, on condition of their carrying ſome viſible mark of their belonging to an infected family.

The intention of the ancient police, in encouraging the inhabitants to fly to the country, while there was yet time; or to ſhut up cloſe in their houſes, before the infection had reached them; in prohibiting public aſſemblies, and even divine ſervice; and in obliging convaleſcents, for a certain time after their recovery, to remain at home; was certainly to prevent an intercourſe deemed highly dangerous; to leave a ſpace more wide, and leſs favourable to contagion, for thoſe who, by public duty, were obliged to make their daily appearance in the ſtreets; and at the ſame time, to leſſen the multiplied cares of the magiſtrate, in preventing diſorders, and in ſuccouring the general diſtreſs.

At a period, when crimes and diſorders are hourly increaſing, when ſome of the magiſtrates, and many of the officers of the police muſt probably have periſhed; while few will be found willing to accept of the vacant offices; to remove reſtraints which will increaſe the trouble, as well as danger, attending the execution of public duty, would be a dereliction that nothing leſs than a ſtate of the laſt extremity, which it is to be hoped will hardly ever happen, could juſtify.

If the healthy and ſick are left in the ſame houſe, what powers of police can penetrate the interior of families, or what regulations can be enforced to prevent an intercourſe fatal to the members of them? But if the ſound, belonging to infected families, were at the ſame time permitted to walk abroad, might they not communicate the infection to others, and, thus expoſed, would they not themſelves run a double riſk of infection?

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The authority of the Chevalier Langeron, who ſpeaks from his own extenſive experience at Marſeilles, is very material on this head. He ſays, he was prevailed on, through complaiſance, in the beginning of his adminiſtration, (that is, near the height of the plague) to permit ſome infected families to remain in their own houſes; the conſequence of which was, that they all fell ſick. He afterwards, with good ſucceſs, purſued a different plan; he cauſed the family infected to be immediately removed, the ſick to an infirmary, the ſound to a Lazaretto, and then, burning the clothes, &c. which had been uſed by the ſick, he carefully ſmoked and purified the houſe, for the reception of the family, on the expiration of their quarantine. He was very ſenſible of the hardſhip of ſuch a meaſure, but experienced the neceſſity of it; for ſo many were averſe from leaving their houſes, and the contagion ſpread ſo furiouſly, where they were indulged in their wiſh to remain, that unſurmountable difficulties aroſe, from the multitude of the ſick; and perſons in eaſy circumſtances, who conceived themſelves ſecure in their retreat at home, would have found themſelves abandoned, in the midſt of a city, become one vaſt hoſpital. "Au lieu (continues he) que tout (les malades) "etant porté aux hôpitaux, & (les ſains) aux endroits deſtinés "pour la quarantaine, on y trouveroit tous les ſoulagemens né- "ceſſaires; ceux qui mourroient ſeroient enterrés dans les cime- "tieres des hôpitaux, la ville n'auroit plus ce ſpectacle, elle ſe "trouveroit en même temps dégagée de ce grand nombre de "malades, qui en augmentoit l'infection, & elle ne ſeroit plus "elle même un hôpital[24]."

The inſtances produced by Dr. Mead of the years 1625 and 1636, make nothing againſt what is here contended for; becauſe by reſtraint is never meant the confinement of the healthy and the diſeaſed, in the ſame houſe. Where that was the caſe, the ſetting open the door might, no doubt, afford the ſound an op-

[24] Traité de la Peſte, p. ii. p. 132.

portunity

portunity of ſhifting better for themſelves. But I think more is inferred from thoſe inſtances than they can well bear. In 1636, the plague is ſaid to have begun with great violence; but this does not appear from the bills of mortality: on the contrary, it would ſeem to have advanced ſlowly; to have arrived later at its height, that is, not till the end of September; and to have declined leſs rapidly than any of the other plagues in the laſt century[25]. I have not ſeen Mr. Cock's book, to which Doctor Mead refers[26], but when it aſſerts that after leave was given for people to quit their houſes, "not one of twenty of the well perſons removed fell ſick, nor one in ten of the ſick died" I cannot help thinking the aſſertion, particularly the latter part, very extraordinary; having never before heard of ſo large a proportion of the infected recovering, even in the very mildeſt plague. But granting the proportion to be nearly juſt, (which may reaſonably be doubted) and that the principal mortality happened during the reſtraint; as above ten thouſand are ſaid to have died that year, the number of infected, after the reſtraint was taken off, muſt have been very conſiderable indeed, and might rationally be aſcribed to unguarded communication, in conſequence of the reſtraint being removed: a concluſion exactly the reverſe of that drawn by Mr. Cock. In contending for an hypotheſis, another circumſtance might be alleged, as a conſequence of the removal of former reſtraints, namely, the long continuance of the plague of 1636, which is ſaid to have laſted twelve years. CHAP. I.

In regard to 1625, the Doctor candidly obſerves, that the remarkable decreaſe of mortality, upon the diſcontinuing to *ſhut up houſes*, happened ſo late in the year, that ſomething doubtleſs might be owing to the near approach of winter, as well as to the taking off the reſtraint, the beginning of September; he adds, "yet the diminution was ſo great, that it is, at leaſt, paſt diſ-

[25] Traité de la Peſte, p. 274 and 276.

[26] Mead, p. 95.

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" pute, that the liberty then permitted was no impediment to " it." But upon conſulting the bills of mortality, the diminution of burials, in 1625, was not found ſo remarkably different from the diminution in other years, allowing for the different periods at which the mortality reached its greateſt height. In 1603, the plague arrived at its height the firſt week of September; in 1625, the third week of Auguſt; and in 1636, not till the laſt week of September. The following table ſhews its decline.

Bill of Mortality at London.

Week.	1603	1625	1636	Week.	1603	1625	1636
September,				October,			
1ſt.	3035	3344	—	6th.	1641	538	921
8th.	2724	2550	—	13th.	1149	511	752
15th.	2818	1072	—	20th.	642	331	555
22d.	2195	1561	—	27th.	580	134	458
29th.	1132	852	928				

It muſt be acknowledged, that from calculations of this kind inferences muſt be drawn with much caution; and that, in aſcribing the decline of the plague to the meaſures, at different periods, adopted by the police, allowance muſt always be made for the concurrent change in the conſtitution of the air; which, independent of all human means, is the great agent in the plague's increaſe, as well as in its decline, and its ceſſation [27].

The removal of infected families to ſome diſtance from town, propoſed by Doctor Mead [28], is conſonant to the practice abroad. But it may deſerve conſideration, whether at the beginning it might not conduce more effectually to a prompt diſcovery of the diſtemper, to have, in each pariſh, a place prepared for the reception of the infected, to which they might be immediately removed,

[27] See before on this ſubject, book iii. ch. v.

[28] Mead, p. 98.

more within reach of their connexions, than when ſome miles diſtant from town. When the diſeaſe begins to ſpread, this delicacy ought to be laid aſide. The infected as well as the ſuſpected families ſhould be removed with all ſpeed, without waiting for night[29], becauſe leſs is to be apprehended from the chance of ſpreading the infection, by conveying theſe families through the ſtreets, in the day time, than from a delay of ſeveral hours, during which, the ſound part of the family muſt of courſe ſuffer confinement in the infected houſe.

The indulgence propoſed by the Doctor, for the rich who may happen to be infected, to be tranſported to their country houſes, inſtead of Lazarettos[30], may be attended with conſiderable riſk of ſpreading the infection, not only on the road, in the inns[31], but to diſtant parts; for it would diſtract the police, to attempt the reſtraint of families ſcattered in the country; and the ſeparation of the ſick from the ſound, in theſe great houſes, as well as the ſafety of the adjacent villages, would come to depend entirely on the diſcretion of the families themſelves. So long therefore as there are hopes of extinguiſhing the diſtemper where it firſt broke out, it ſeems adviſable to permit no ſuch indulgence, and only to provide Lazarettos for the opulent, diſtinct from thoſe for the poor.

When the ſick families are gone, ſays Doctor Mead, "All the "goods of the houſes, in which they were, ſhould be burnt, "or rather buried deep under ground, where there is not a wide "ſpace convenient for burning them[32]." I have before given

[29] Mead, p. 99.

[30] Ibid.

[31] The advice of the College, in 1636, contains an article, "Caution concerning "flying into the country," which is ſomewhat altered in 1665, article 11. Both may be conſulted.

[32] Mead, p. 108.

my

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my opinion on the practice of burning infected merchandise[33]; and ſtill concur with thoſe who think the burning of furniture not only in general unneceſſary, but liable to many objections[34].

The viſitation of the dwellings of the meaner ſort of the inhabitants, and, where they are found ſtifled up too cloſe, and naſty, the ſending ſome into better lodgings, and making proper proviſion for keeping them all clean and ſweet[35], are very properly recommended.

The waſhing and cleanſing the ſtreets; the removal of all nuiſances; the prohibiting common beggars[36], &c. &c. &c. are precautions common from time immemorial in all countries, and were repeated in the old orders for health, by the mayor and aldermen, in 1603.

If thoſe early precautions we have mentioned (adds Doctor Mead) "prove ſucceſsful, there will be no need of any methods for "correcting the air, purifying houſes, or of rules for preſerving

[33] Book v. chap. v. and vi.

[34] Orders againſt the infection, art. 13, and Muratori, lib. i. c. ix. Muratori, after having mentioned ſome of the inconveniencies attending the burning of furniture, &c. proceeds thus, "furono dunque inventate eſpurgazione regolate, merce delle quali ſi "poſſono conſervare quaſi tutte le Maſſerizie, veſti, & mobili delle caſe infette e ſoſ-"pette. Baſta oggidi ſolamente conſegnare al fuoco i pagliacci, e pure le ſole paglie, "i guanciali, i cuſcini, i cenci o ſia gli ſtracci, & altre robe de minor conto, che ab-"biano immediatamente ſervito agli appeſtati, ſiccome ancora le piumi de' Matteraſſi, "poiche ſi poſſone molte bene eſpurgare le lane, e le ſodore d'eſſi." Muratori Governo Politico, p. 71.

Regular purifications were then invented, by which almoſt all may be ſaved of houſhold goods, apparel, and furniture. It is, at preſent, only neceſſary to burn ſtraw beds, or rather the ſtraw; pillows, cuſhions, old clothes, rags, or other things of ſmall value, which have been uſed immediately by the infected; as alſo the feathers of beds or mattreſſes; but the wool, and the lining of the mattreſſes, can be perfectly purified.

[35] Mead, p. 109.

[36] Ibid. p. 111.

"par-

" particular perſons from infection: to all which, if the plague CHAP. I.
" got head, ſo that the ſick are too many to be removed, regard
" muſt be had[37]."

Correcting the air, purifying houſes, and preſerving particular perſons from infection, would ſeem to be material objects of attention from the beginning, and not to be deferred, till the number of the ſick ſo increaſes, that their removal to the Lazaretto becomes impracticable. The perſons employed in removing the ſick; in nurſing them; in medical attendance; in tranſporting the furniture, and ſtuff to be burnt; or in white-waſhing the houſe, when it is not to be burnt, are all expoſed to catch the diſeaſe, and if there be means of protecting them, they ſurely ought to be immediately employed, however few the ſick, or the number of infected houſes.

The methods of purifying the air by fire and ſmoke[38], of which Doctor Mead appears not to entertain a favourable opinion, will come under conſideration in another place; it need only be remarked here, that when the preſervation and purifying of houſes is reduced to the ſimple precept of keeping them clean, and cool, and the exemptions of the Perſians from the plague, is ſuppoſed to be owing to their being the cleanlieſt people in the world; it ſhould be remembered, that the Turks, in the Ottoman dominions, are not leſs cleanly than the Perſians, and yet their country is often ravaged by that dreadful diſtemper. It muſt, at the ſame time, be acknowledged, in favour of the Doctor's remark, that the large airy houſes of perſons of diſtinction in Turkey, ſuffer, in general, much leſs ſeverely from the plague, than the more confined and leſs cleanly habitations of the inferior ranks.

[37] Mead, p. 112.
[38] Ibid. p. 113.

Doctor

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Doctor Mead's Diſcourſe was written by command of the Secretary of State, and in conformity to ſome of the meaſures he propoſed, for ſuppreſſing the infection, in caſe of the plague being imported into Britain, a bill was brought into Parliament, in December, 1720, which paſſed into a law, in the month of January.

The plague had, at that time, declined at Marſeilles; but former accounts from thence had ſpread terror univerſally over Europe, and the apprehenſions ſtill ſubſiſting in England might perhaps conduce to render the oppoſition to the act, in both houſes, leſs powerful than it was. This ſeems the more probable, from the eagerneſs ſhown next year, after the decline of the plague in France, firſt, to ſhorten the continuance of the act, and next, to repeal certain clauſes in it, which had given occaſion either to real or pretended uneaſineſſes. Both purpoſes were effected by two ſubſequent acts, in 1721, of which mention has been made before [39]. Some account of the clauſes, which were particularly calculated to prevent the ſpreading of infection, when the plague actually exiſts in Britain, was reſerved for this place.

While the Quarantine Bill was yet depending in the Houſe of Commons, a petition, againſt certain clauſes of it, was preſented by the Levant Company, praying to be heard by themſelves, or council. Some of the members of that Company were accordingly heard, on the ſubject of their petition, in a Committee of the whole Houſe.

In the month of December, 1721, the City of London preſented a petition to the Houſe of Lords, againſt certain clauſes of the Quarantine Act, which, after a debate, was rejected by 63 voices againſt 22. In the week following, a motion being made in the Houſe of Lords, by Earl Cowper, and ſeconded by

[39] Book v. chap. vii.

the

the Lords Bathurſt, North and Grey, that a bill be brought in for the repeal of two clauſes in the Quarantine Act, the queſtion was reſolved in the negative, by 39 voices againſt 20. CHAP. I.

Within a month after this tranſaction in the Houſe of Lords, a motion, to the ſame purpoſe, was made in the Houſe of Commons, and upon a diviſion, 115 againſt 95, leave was given to bring in a bill for the repeal. The bill paſſed the 29th of January, and received the Royal Aſſent the 12th of February, under the title of "An Act for repealing ſuch Clauſes in the Act paſſed "in the 7th Year of his Majeſty's Reign (relating to Quarantine "and the Plague) as gives Power to remove Perſons from their "Habitations, or to make Lines about Places infected[40]."

The queſtions much agitated at that period, are ſtrictly connected with my preſent ſubject, and the arguments, then employed, are likely to be revived, whenever regulations for times of actual infection in the country ſhall come under parliamentary diſcuſſion. I have thought proper therefore, to tranſcribe four clauſes from the expired act, and a remarkable proteſt of the Lords, when the motion for a repeal met with a negative.

But it ſhould be remarked of theſe clauſes, that the ſecond and fourth only were repealed; and that the third, though alſo objected to, by the City of London, was left remaining, and has been retained in the ſeveral Quarantine Acts made ſince that time.

The ſelected clauſes are the following.

I. And be it further enacted, That if at any time or times hereafter any city, town, or place within Great Britain or Ireland, or the iſles of Guernſey, Jerſey, &c. ſhall be infected with the plague, and the ſame, upon examination, ſhall be made

[40] In the preamble of the act, it is ſaid, "Whereas the execution of the powers "and authorities mentioned in the ſaid recited clauſes, might be very grievous "to the ſubjects of this kingdom."

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to appear to his Majeſty, his heirs or ſucceſſors, in Council, it ſhall and may be lawful to and for his Majeſty, his heirs, &c. by and with the advice of his or their Privy Council, during the continuance of ſuch calamity, to make ſuch orders and regulations concerning quarantine, and the prevention of infection, as ſhall be neceſſary for the ſafety and preſervation of his or their ſubjects, and to notify the ſame by proclamation; and all and every perſon or perſons, officer and officers, civil and military, whatſoever, ſhall render due and exact obedience to all ſuch orders and regulations ſo made and notified as aforeſaid.

II. And be it further enacted, That if any perſon infected with the plague, or obliged to perform quarantine, ſhall wilfully refuſe or neglect to repair, within convenient time, after due notice for that purpoſe given to him, her, or them, by the proper officer, to the ſhip, houſe, lazaretto, or other place duly appointed for him, her, or them; or having been placed in ſuch ſhip, houſe, lazaretto, or other place, ſhall eſcape, or attempt to eſcape out of the ſame, while he, ſhe, or they ſhall continue infected, or before quarantine fully performed reſpectively, it ſhall and may be lawful to and for the watchmen, and other perſons, appointed to ſee quarantine performed, by any kind of violence that the caſe ſhall require, to compel every ſuch perſon ſo refuſing or neglecting as aforeſaid, and every ſuch perſon ſo eſcaping, or attempting to eſcape, as aforeſaid, to repair and return into ſuch ſhip, &c. ſo appointed for him, or her, as aforeſaid, and every ſuch perſon ſo refuſing or neglecting to repair, within convenient time after ſuch notice as aforeſaid, into ſuch ſhip, &c. appointed for him, or her, as aforeſaid; and alſo every perſon actually eſcaping as aforeſaid, ſhall be adjudged guilty of felony, and ſhall ſuffer death as a felon, without benefit of clergy.

III. And be it further enacted, That if any perſon not infected, nor liable to perform quarantine, ſhall preſume to enter any ſhip, &c. &c. as aforeſaid, while any perſon or perſons ſo infected,

infected, or being under quarantine, ſhall be therein, and ſhall return, or attempt to return from thence, unleſs in ſuch caſes, and by ſuch proper licence, as ſhall be directed or permitted by ſuch order or orders, made, or to be made, and notified as aforeſaid; it ſhall and may be lawful to and for the watchmen, or other perſons, appointed to guard or ſecure ſuch ſhip, &c. &c. as aforeſaid, by any kind of violence that the caſe ſhall require, to compel ſuch perſon ſo returning, or attempting to return, to repair into ſome ſhip, &c. &c. ſo appointed as aforeſaid, there to continue and perform quarantine; and in caſe ſuch perſon ſhall actually eſcape out of ſuch ſhip, &c. &c. where he, or ſhe, ſhall be ſo placed for performance of quarantine, before he, or ſhe ſhall have fully performed the ſame, he, or ſhe, ſhall be judged guilty of felony, and ſhall ſuffer death as a felon, without benefit of clergy.

IV. And be it further enacted, That if at any time or times hereafter, any city, town, or place within Great Britain or Ireland, &c. ſhall be infected with the plague, it ſhall and may be lawful to and for his Majeſty, his heirs and ſucceſſors, to cauſe one or more line or lines, trench or trenches, to be caſt up or made about ſuch infected city, town, or place, at a convenient diſtance from the ſame, in order to cut off the communication between ſuch infected city, town, or place, and the reſt of the country; and to prohibit all perſons, goods, and merchandiſes whatſoever, to enter, paſs, or be carried over ſuch lines or trenches, unleſs in ſuch caſes, and by ſuch proper licence, and ſubject to ſuch regulations and reſtrictions for performance of quarantine, as ſhall be directed or permitted by any ſuch order or orders, made or to be made, and notified as aforeſaid; and in caſe any perſon or perſons, being within ſuch lines or trenches, or any of them, ſhall, during the time of ſuch infection, preſume or attempt to come out of the ſame, unleſs in ſuch caſes, and by ſuch proper licence, and ſubject to ſuch regulations and reſtrictions for performance of quarantine, as ſhall be directed or permitted

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mitted by such order or orders, made or to be made, and notified as aforesaid, it shall and may be lawful to and for the watchmen, or persons appointed to guard or secure such lines or trenches, or any of them, by any kind of violence that the case shall require, to compel all and every such person or persons to return back within such lines or trenches; and in case any person shall actually come out of such lines or trenches, or any of them, unless in such cases, and by such proper licence, and subject to such regulations and restrictions as aforesaid, every such person shall be adjudged guilty of felony, and suffer death as a felon, without benefit of clergy.

Here follows the Protest of the Lords in the month of December, 1721.

A motion was made, the 13th of December, in the House of Lords, and the question being put, that a bill be brought in for the repeal of so much of the act passed last year relating to the plague, as gives a power to remove to a Lazaretto, or pest-house, any persons whatsoever infected with the plague, or healthy persons out of an infected family, from their habitations (though distant from any other dwelling-house). And also so much of the said act, as gives power for the drawing lines or trenches round any city, town, or place infected; it was resolved in the negative.

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Dissentient.

I. Because the powers specified in the question, seem to us, such as can never wisely or usefully be put in execution. For by the first of them, persons of what rank or condition soever, either actually infected, or being in the same habitation, though in lone-houses, where they are well accommodated, and from whence there

there is no danger of propagating the infection, may be forcibly removed into common Lazarettos or peſt-houſes. And it does not appear to us, that ſuch a power could at any time be reaſonably executed, and therefore we conceive it ſhould be repealed. CHAP. I.

The other power extends to the drawing of lines around any city, town, or place, and conſequently around the cities of London and Weſtminſter; the very apprehenſions of which, upon the leaſt rumour of a plague, would diſperſe the rich, and by that means (as well as by hindering the free acceſs of proviſions) ſtarve the poor, ruin trade, and deſtroy all the remains of private and public credit.

II. Becauſe ſuch powers as theſe are utterly unknown to our conſtitution, and repugnant, we conceive, to the lenity of our mild and free government; a tender regard to which was ſhewn by the act Jac. I, which took care only to confine infected perſons within their own houſes, and to ſupport them under that confinement, and lodged the execution of ſuch power ſolely in the civil magiſtrate; whereas the powers by us excepted againſt, as they are of a more extraordinary kind, ſo they will probably (and ſome of them muſt neceſſarily) be executed by military force; and the violent and inhuman methods which on theſe occaſions may, as we apprehend, be practiſed, will, we fear, rather draw down the infliction of a new judgment from Heaven, than contribute any ways to remove that which ſhall then have befallen us.

III. Becauſe we take it, theſe methods were copied from France, a kingdom whoſe pattern, in ſuch caſes, Great Britain ſhould not follow; the government there being conducted by arbitrary power, and ſupported by ſtanding armies; and, to ſuch a country, ſuch methods do, in our opinion, ſeem moſt ſuitable: and yet, even in that kingdom, the powers thus exerciſed of late, have been

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been as unſucceſsful, as they were unprecedented; ſo that no neighbouring ſtate has any encouragement from thence to follow ſo fatal an example. In the laſt plague with which we were viſited, Anno Dom. 1665, though none of theſe methods were made uſe of, much leſs authoriſed by Parliament, yet the infection, however great, was kept from ſpreading itſelf into the remote parts of the kingdom; nor did the city of London, where it firſt appeared, and chiefly raged, ſuffer ſo long, or ſo much, in proportion to the number of its inhabitants, as other cities and towns in France have ſuffered, where theſe cruel experiments have been tried.

IV. Becauſe, had ſuch part of the act, as we think ſhould be repealed, been accordingly repealed, there would ſtill have remained in it a general clauſe, which gives the crown all powers neceſſary to prevent the ſpreading of infection; and conſequently, theſe very powers among the reſt, if they ſhould be found neceſſary: and therefore there is no need we conceive, to have them expreſsly granted in the ſame act of parliament, which ſeems not only to warrant, but, in a particular manner, to preſcribe and direct the uſe of them.

V. Becauſe the great argument urged for continuing theſe powers ſpecified in the queſtion (that they would probably never be put in execution in the caſes objected to) ſeems to us a clear reaſon, why they ſhould not be continued; for we cannot imagine why they ſhould ſtand enacted, unleſs they are intended to be executed; or of what uſe it will be to the public, to keep the minds of the people perpetually alarmed, with thoſe apprehenſions under which they now labour, as appears by the petition from the city of London, lately rejected. It may be an inſtance of our great confidence in his Majeſty's wiſdom and goodneſs, when we truſt him with ſuch powers unknown to the conſtitution; but we think it ill becomes us to repoſe ſuch truſt, when it tends, in our opinion, rather to render him terrible, than

than amiable to his ſubjects; and when the only advantage he can (as we conceive) draw from the truſt repoſed in him, is not to make uſe of it,

The arguments produced in the above Proteſt of the Lords, may be preſumed to have been among the ſtrongeſt that were employed againſt the objectionable clauſes of the act. They are highly deſerving of attention, and, may ſuggeſt amendments in framing any future act. I ſhall, in the mean while, with due ſubmiſſion, offer a few remarks on the objections made by their Lordſhips.

The conſtruction of that clauſe of the act, in the firſt article of the Proteſt, relative to lone-houſes, ſeems to be overſtrained, and the objection might be removed by an explanation.

The ſecond article of the Proteſt, mentions the comparative lenity of the ſtatute of James the Firſt, which only took care to confine infected perſons within their own houſes, and to ſupport them in that confinement. But the Proteſt omits to mention, that perſons not infected were, by the ſame ſtatute, confined in the ſame dwelling with thoſe ſick of the plague.

The remark, that the execution of the powers given by James the Firſt, were lodged ſolely in the civil magiſtrate, is juſt; and perhaps ſimilar powers ought never to be lodged any where elſe. But in the act objected to, there is no direct mention of military force; and even the watching the propoſed lines and trenches, is expreſsly committed to the civil magiſtrate.

The objections, in the third article of the Proteſt, are that the methods adopted in the act, were borrowed from France; that even there they had proved unſucceſsful; that no ſuch methods had been uſed in the laſt plague at London; that, nevertheleſs, the infection was kept from ſpreading into the remote parts

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parts of the kingdom; and that London did not ſuffer ſo much, in proportion, as the cities and towns in France.

To theſe it may be anſwered, that if the methods propoſed for preventing the infection from ſpreading, promiſe to be of ſervice, it ſeems very immaterial from what country they were borrowed. That the government in France was conducted by arbitrary power, might be true; and it was the buſineſs of the legiſlature in Britain, in framing the act, to guard the execution of it, agreeably to the principles of a free government. But, under proper and expreſs limitations, the Britiſh conſtitution, ſeemed to be no more affected by the clauſes in queſtion, than it is by the preſent quarantine laws, in reſpect to ſhips, moſt of which laws were borrowed from arbitrary governments. The influence of theſe clauſes was indeed more extenſive, as the object in view was of more general importance to the kingdom, but the principle, in reſpect to the Britiſh conſtitution, would appear to be the ſame, in both caſes.

If the methods purſued in France, had been always found ineffectual, it would have been a good reaſon for rejecting them. That they ſometimes failed, muſt be allowed; but if the French Memoirs, which had not at that time been publiſhed, may be truſted, the methods recommended, though not infallible, had often proved of great ſervice.

What is aſſerted of London, in 1665, ſeems to have been hazarded upon too ſlight information. A ſeparation of the ſound from the infected, was recommended, and often practiſed; and if the remote parts of the kingdom eſcaped, without uſing any precautions, it may be aſcribed to their diſtance, and the want of communication with infected places.

If London ſuffered leſs than ſome of the French towns, it would be ſtrange to aſcribe the difference to the latter having

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ſed means of preventing communication, and the former not. But concluſions, from the different degrees in which the plague rages, muſt be cautiouſly drawn; becauſe remarkable difference in the ſpread of infection, at different periods, has been before ſhown, in reſpect to London, and ſtill more particularly at Aleppo, where nothing could be attributed to variation in the police.

In the fourth article of the Proteſt, their Lordſhips admit, that the very powers they object to were already given, by the general clauſe, which gives the crown all powers neceſſary to prevent the ſpreading of infection; and therefore, there was no need to have them expreſsly granted in the ſame act, which ſeems not 'only to warrant, but to direct the uſe of them.'

Might it not be aſked here, whether the apprehenſions of the people were not likely to be more alarmed, by the unknown and undefined powers granted to the crown, in the general clauſe, than when the powers granted were clearly expreſſed and explained, by the legiſlature? Or what ground for confidence muſt the ſubjects of a free government have, when powers are, by implication, conferred, in a public act, which the legiſlature ſeems afraid of acknowledging?

The neceſſary and extraordinary powers to be exerciſed, in the unhappy times of the peſtilence, ſeem to be the proper objects of parliamentary diſcuſſion. When duly limited and explained by the legiſlature, they would be received with reſpectful ſubmiſſion. But implicit reliance on ſuch undefined orders as a Privy Council might, at any future time, judge fit to iſſue, in a matter ſo univerſally intereſting to domeſtic quiet, was not to be expected of Britiſh ſubjects; it was an exceſs of confidence which they hardly would repoſe in any Council whatever, were it even to be compoſed of archangels.

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When there is no preconcerted plan of operation, for the purpoſes of the powers intruſted to the Council, there is little reaſon to expect that well digeſted orders will be iſſued, under the urgency of immediate danger. If a plan be concerted, no reaſon appears why the principal parts of it, ſhould not be avowed, and publicly receive the expreſs ſanction of the legiſlature, while inferior details are left to the diſcretion of the Council of Health.

That to hinder promiſcuous intercourſe, and to ſeparate the ſound from the infected, are the moſt probable means, yet known, of preventing the plague from ſpreading, are propoſitions that will hardly be controverted. Opinions may differ concerning the methods by which the objects in view are moſt likely to be attained, but all will agree, that the moſt gentle, and leaſt oppreſſive to the ſubjects, for whoſe benefit they are intended, if equally effectual, ought undoubtedly to have the preference. To remove immediately the infected families, placing the ſick in proper infirmaries, according to their ranks, and the ſound in Lazarettos, prepared for the performance of a ſhort quarantine, while their own houſes ſhould be purified, to receive them on their return, is one of the general methods propoſed. This, in a free and diſpaſſionate diſcuſſion, would be variouſly modified, and improved. The united wiſdom of the Senate, would add ſuch reſtrictions and conditions, to the principal points, as might ſerve to reconcile the minds of men to powers which, on a firſt view, appear dangerous, and to regulations that ſeem harſh and oppreſſive.

The execution of the meaſures judged moſt expedient, thus limited and explained, would be intruſted to the civil magiſtrate, and the municipal officers, under the direction of the Council of Health, of which the diſcretionary power, is ſuppoſed reſtricted to matters not detailed in the ſtatute. It may, perhaps, be the readieſt way to prevent groundleſs fears and jealouſies, raiſed by new or extraordinary powers given to government, 'that it

'appear

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'appear they are not only warranted, but the uſe of them par-
'ticularly preſcribed and directed by the legiſlature.'

In the mean while, the ſtatute of James the Firſt remains in force, and comprehends almoſt the only parliamentary directions for the internal government of places actually infected. The Quarantine Act of George the Second, now in force, empowers his Majeſty, when the plague is in Britain, to prohibit ſmall boats and veſſels, under the burthen of 20 tons, from ſailing out of any Britiſh port, except under certain conditions. This ſeems to be the only clauſe applicable to ſuch times. The others relate to the quarantine of ſhips, merchandiſe, or perſons, coming from infected places, or from any place whence it may be judged probable that the infection may be brought. In reſpect to all theſe, they are explicitly made ſubject to ſuch orders, rules, and directions, concerning quarantine, and the prevention of infection, as have been, or ſhall be made by his Majeſty. How far this power, over all *perſons obliged to perform quarantine*, may be extended, ſo as to comprehend infected perſons in private houſes, and compel them to repair to a Lazaretto, is a point of law not for me to decide. If under the words, *Prevention of Infection*, ſuch power be intentionally couched, the fourth clauſe of George the Firſt's act, expreſsly empowering government to act, in times of peſtilence, ſeems much preferable to the indirect implication, if ſuch exiſts, employed in the preſent Quarantine Act. And it may be further remarked, that, expreſs as the general clauſe was, in the act of 1720, it was neceſſary, in the opinion of the Attorney General and Solicitor General, who drew up the bill, to ſpecify, in ſeparate clauſes, the powers to which the proteſting Lords objected, though, in the opinion of their Lordſhips, thoſe powers were ſufficiently implied before, in the general clauſe.

But, however it may be doubted, whether an infected family can be removed from their houſe, by virtue of the preſent Quarantine Act, there appears no doubt that, agreeably to the ſtatute

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of James the Firſt, the ſame family might, by the civil magiſtrate, be confined to their houſe, by compulſion, and under heavy penalties. The ſeparation of the family, under ſuch calamitous circumſtances, by which a part may probably be preſerved, appears a tender meaſure, compared to that of ſhutting up the infected and the ſound together, in the ſame houſe, however well the unhappy priſoners may be ſupplied with the neceſſaries of life. Imagination recoils, with horror, from the varied ſcenes of diſtreſs reſerved for ſuch a dreadful impriſonment[41]; and one cannot avoid wondering, that in the year 1720, ſo little notice was taken of a law, at leaſt equally inconſiſtent with the Britiſh conſtitution, and leſs conducive to the ſafety of the ſubject, than the repealed clauſes of the act of George the Firſt.

An account of the ſtatute of James the Firſt, and more particularly of the clauſes in queſtion, has been already given. The other clauſes relate chiefly to the infected poor, and enable the civil magiſtrate to lay taxes on the inhabitants, houſes, lands, &c. proportionate to the neceſſities of the diſtrict, for the relief of the poor. It being neceſſary that "they be by ſome charitable courſe "provided for, leſt they ſhould wander abroad, and thereby in-"fect others."

By another clauſe, the civil magiſtrates are alſo empowered "to appoint within their ſeveral limits, ſearchers, watchmen, "examiners, keepers, and buriers, for the perſons and places re-"ſpectively infected. And to miniſter unto them oaths for the "performance of their offices, and give them other directions, "as unto them for the preſent neceſſity ſhall ſeem good in their "diſcretions."

So far the legiſlature has interfered in ſettling two material articles of the police. The mode of confining infected perſons in

[41] Journal of the Plague Year, p. 45. 57. Lond. 1722. The Shutting up of Houſes ſoberly debated. Lond. 1765.

their

their houſes, certainly requires amendment; and perhaps ſeveral articles might be ſelected from the old orders, iſſued in 1603, which, with a few alterations, might be inſerted with advantage into any new act, that the legiſlature, in its wiſdom may think fit to frame, at any future time.

Having premiſed theſe remarks, on the orders againſt the infection of the plague, iſſued in former times; on the acts of parliament made in 1604, and 1720; and on the ſecond chapter of Doctor Mead's Diſcourſe; I now proceed to the conſideration of the police, in times of peſtilence, as it relates to the four different ſtages of the plague; that is to ſay, to its beginning, its increaſe, its decreaſe, and its termination. Of theſe four, the firſt and the third ſtages, ſometimes afford an opportunity of attempting the extinction of the diſeaſe, and, conſequently, of averting a long train of evils, which, when that opportunity is once neglected, elude all the after vigilance of the magiſtrate.

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Regulations in the beginning of the plague—Diſſent of phyſicians not to be regarded—Obſtinacy of the phyſicians, at Meſſina—The diſtemper ſhould not be concealed by the police—A general quarantine propoſed for extinguiſhing the plague, at the beginning—Some of the old orders ſhould be revived—The great hoſpitals ſhould be ſhut up—Various preparatory arrangements.

THE plague, in the beginning, ſeldom ſhows itſelf in more than one diſtrict, perhaps in one ſtreet only at the ſame time, and its progreſs, in general, is ſo ſlow, and ſo little alarming, that, in populous cities, it may remain ſeveral weeks, among the lower claſs of people, unnoticed or unknown.

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The procuring the moſt early intelligence of the diſtemper; the immediate ſeparation of the ſound from the infected; the ſecuring the furniture of infected houſes; and the temporary ſecluſion of perſons who may have, unwittingly or otherwiſe, had intercourſe with the ſick, or their family; are the principal objects which the police ought to have in view, at this period.

In ſuſpicious times, that is, when the plague rages in the neighbouring ſtates, and has appeared in the Lazaretto, or in ſhips from infected places, the diſcovery of the ſickneſs in the city ſhould be encouraged, by a public reward[1]; and medical perſons, of every denomination, ſhould be required, by authority, to give information of any ſuſpicious caſes which they may happen to meet with, in the courſe of their practice.

Female ſearchers, who, when requiſite, were aſſiſted by ſurgeons, were formerly appointed in every pariſh, in conſequence of the orders againſt infection publiſhed by James I; and in 1665, the College of Phyſicians, very properly inſerted a new article, in their public advice, containing inſtructions to the ſearchers. In this there is a good deſcription of the peſtilential eruptions, and, where ſuch are found, there can be no doubt of the nature of the diſeaſe; but it ſhould always be remembered, that perſons often die, eſpecially in the beginning of the peſtilential ſeaſon, without any viſible external marks upon the body, and therefore, the abſence of theſe is no proof of the diſtemper not being the plague: moreover, it often happens that thoſe employed about the ſick, at this time, eſcape unhurt, as if the diſeaſe were not contagious.

Theſe two circumſtances cannot be too often repeated, becauſe a want of attention to them has, in every country, proved the ſource of fatal errors. It is alſo to be wiſhed, that the College,

[1] Mead, p. 100.

in

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in their future advice, would inſert a ſhort enumeration of the moſt ſuſpicious peſtilential ſymptoms, as an additional article of inſtruction to the ſearchers, when called upon to viſit, in conſequence of the order of the mayor, entitled, "Notice to be given "of the ſickneſs;" by which the maſter of every houſe is required to give information, within two hours, not only upon diſcovery of external eruptions, but likewiſe "where a perſon falls dan- "gerouſly ſick, without apparent cauſe of ſome other diſeaſe."

Perhaps no inſtructions whatever would lead to certainty, in this caſe, but it would be ſufficient if they pointed out circumſtances juſtly ſuſpicious. In the ſmall-pox, in the beginning of the ſeaſon, before they have become epidemical, the moſt experienced phyſician, in any particular caſe, would hardly hazard a deciſive opinion, before eruption. The difficulty is ſtill greater in the plague, where the ſymptoms are more obſcure, and where perſons in imminent danger, ſometimes appear to be but ſlightly diſordered. But in ſuſpicious times, anomalous ſymptoms, and unexpected death, after a ſhort illneſs, ought to give alarm; for it greatly imports the public ſafety, that ſuch ambiguous caſes ſhould be conſidered as peſtilential. Where the diſtemper has, in one or two inſtances, been aſcertained by the appearance of buboes or carbuncles, all further heſitation ſhould be at an end; and ſuch caſes, as might before have been reckoned ambiguous ſhould, without further conteſt, be deemed the plague.

This is founded on that important maxim, which the experience of Ferrara ſhowed to be ſo neceſſary and beneficial, in the year 1630, namely, "After the firſt accident was aſcertained, to ſet "down every ſudden attack of illneſs for the plague, whether "clearly denoted by the ſymptoms or not, and to take meaſures "accordingly [z]."

Doctor

[z] Muratori Governo Politico, lib. i. cap. v. "Dopo il primo caſo, ſi ſtabili, & "fu conoſciuta neceſſaria, non che utilliſſima, quella gran maſſima di ſempre inter- "pretare

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Doctor Mead has taken notice of the ſucceſs attending the conduct of the magiſtrates of health, at Ferrara, on this occaſion, and has cited, from their Memoirs, a declaration intended for the inſtruction of poſterity, " that the only remedy againſt " the plague is to make the moſt early diſcovery of it " that is poſſible, and thus to extinguiſh it in the very be- " ginning[3]." But, I apprehend, he has inadvertently omitted what ſtands in the original, and is of material conſequence, namely, " to hold every accident for the plague, which admitted " of ſuſpicion[4]." The magiſtrates of Ferrara did not merely endeavour to procure early intelligence, but as ſoon as an accident came to their knowledge, although the caſe was only ſuſpicious, they proclaimed it to be the true plague, by tranſporting the inhabitants of the houſe to the Lazaretto, at noon-day; contrary to the conduct purſued at Verona, Milan, and other towns, where they took great pains to conceal the diſtemper, as long as they could, from an apprehenſion of loſing their commerce by a diſcovery; and where they paſſed that time in diſputation, on the nature of the malady[5], which ought to have been employed in taking the neceſſary precautions for the public ſafety.

" pretare per peſte ogni accidente, indicante indifferentemente peſte, e non peſte ; " e quantunque alcune volte (furono nondimeno eſſe ben poche) forſe non ſi accer- " taſſe ivi nel giudicare, tuttavia ſi accertò ſempre in aſſicurar la patria."

[3] Mead, p. 102.

[4] Muratori Governo Politico, p. 39.

" In ſomma ebbero, ſecondo me, ragione i Ferrareſi di conchiudere nelle loro " memorie, poter' eglino certificare agli altri, che il pubblicare prontamente il male, " e il *tenere per contagioſo ogni caſo, che ſia capace di ſoſpetto*, è l'unico remedio all' " eſtinzione del medeſimo male."

The people of Ferrara had, in my opinion, reaſon to inſert in their public Memoirs, for the inſtruction of other ſtates, that an early diſcovery of the diſeaſe, and to conclude every accident, which admitted of ſuſpicion, to be peſtilential, were the only means to extinguiſh the plague.

[5] Muratori Governo Politico, p. 38.

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The exemplary conduct of the magiſtrates of Ferrara, is the more deſerving of attention, becauſe the contrary practice has been found, by repeated experience, to be attended with the moſt fatal conſequences. To the inſtances produced in proof of this by Muratori, at Venice, in 1576; at Florence, in 1630; at Malta, in 1675; and at Vienna, in 1713[6], may be added that of Marſeilles, in 1720; and that of Meſſina, in 1743. The obſtinacy of the ſurgeon of the Lazaretto at Marſeilles[7]; the diſſent of the phyſicians[8]; and the unfortunate meaſure, adopted by the magiſtrates, of deceiving the public, by a ſolemn declaration, that the reigning diſtemper was not the plague[9], in ſo far as they cauſed a relaxation in the requiſite precautions, and countenanced an unguarded intercourſe, were productive of conſequences which ought to prove a ſtanding warning to poſterity. I have before had occaſion to make ſome remarks on this head, and for the reſt ſhall refer to the Journal of the Plague at Marſeilles, and the Relation Hiſtorique; but I cannot paſs over the more recent example of Meſſina. In that plague it appears, that after the death of the maſter and one of the mariners of the ſhip, which brought the infection from the Morea, in the latter end of March, the ſhip and cargo were deſtroyed, and the remaining crew were put under a rigorous quarantine. That no other accidents intervening, the firſt alarm ſubſided, the people reſumed confidence, as if all had been over, and the 15th of May was appointed for the celebration of a Te Deum, in the cathedral. That the ceremony was interrupted, after the people were aſſembled, by a phyſician, who declared he had reaſon for thinking the plague was actually in the place. A declaration which endangered his own life, it being with difficulty he made his eſcape from the fury of the populace; and though from that period to the end of the month between three and four hundred periſhed, of a diſtemper which he continued to affirm was the genuine plague;

[6] Muratori Governo Politico, p. 37.
[7] Relat. Hiſtor. p. 35.
[8] Ibid. p. 41. 45. 47.
[9] Relat. Hiſtor. p. 55. 112.

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no precautions were taken. He perſiſted ſingly in his opinion againſt the reſt of the faculty, who, in ſpite of unequivocal ſymptoms, contended it was only an ordinary epidemic diſtemper. On the 31ſt of May an aſſembly of thirty-three phyſicians concurred in a formal atteſtation, of its not being the plague. Laſtly, that the funerals ſoon increaſing to one hundred, daily, government, at length, but too late, took the alarm, and dreadful ſcenes of unparalleled anarchy followed [10].

This

[10] In a former note, page 327, I gave an account of the introduction of the plague at Meſſina, extracted from a private letter of a gentleman, who at the time was reſident there. The letter proceeds thus. "The Padrone's death, on the 24th of "March, gave the firſt alarm, but being followed, on the 27th, by one of the ſailors "with all the ſymptoms of a peſtilential diſtemper, the conſternation was general; "whereupon it was determined, in a public council, that the landed goods at the Lazaretto, together with the veſſel, ſhould be immediately burnt, and that the remaining crew ſhould be confined in the propereſt part of the Lazaretto, under a ſtrong "guard. All which was punctually performed, and with the moſt rigorous precautions, by the intervention of the principal nobility.

"This contributed to calm the minds and the apprehenſions of the people, and "as the remaining crew continued to enjoy perfect health, the tranquillity ſoon "became general, ſo that after the expiration of forty days, the archbiſhop was "appointed, on the 15th of May, to aſſiſt at the *Te Deum* in the cathedral, in "thankſgiving for the happy deliverance, from the moſt terrible of all the Divine "judgments. But no ſooner was the church full, and the ſenators arrived at their "ſeats, than a phyſician accoſted them with the dreadful notice that ſome of his "patients had diſcovered ſymptoms too much reſembling the plague; adviſing them "to poſtpone the thankſgiving, till they ſhould be convinced his apprehenſions were "groundleſs. This being ſpread about in the church, ſo great was the infatuation "of the people, it was with great difficulty he could retire, and ſeek an aſylum in "a convent, to avoid the fury of the populace, who would have ſacrificed him for "having, in their opinions, attempted to defame the city.

"Too ſoon, however, it was viſible that this phyſician had repreſented the "truth, which he continued to aſſert againſt the reſt of the whole body of phyſicians, who were of contrary ſentiments, and too obſtinately perſevered in them; "ſo that the diſtemper, which began, at that time, by ſlow degrees to manifeſt itſelf, "was only conſidered as epidemical, and as a continuance of the intemperature of "the air, that had, in reality, occaſioned certain epidemical, and even mortal diſ-

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This infatuation of the Meſſineſe exceeds even that of the people of Marſeilles, and might ſeem an exaggeration, did not the hiſtory of almoſt every plague furniſh examples of a kind ſomewhat ſimilar. Muratori has collected ſeveral others; he obſerves,

" orders, during all the preceding winter, in many parts of Italy, and Sicily, which " circumſtance, together with the natural love of their country, the horror attend- " ing only the name of a plague, the good opinion they entertained of their Laza- " retto, and of the honourable proceedings of their magiſtrates, contributed to for- " tify their firſt notions of its being only a common diſtemper; and ſo much the " more, as for many days it *was not diſcovered to communicate to thoſe who attended* " *the ſick, either in their own houſes or in the hoſpitals*; and moreover, that the women " were, in a manner, ſolely attacked.

" Theſe united circumſtances aſſiſted to eſtabliſh this falſe miſtaken opinion, and " might indeed have been in ſome meaſure plauſible, had it not been for the certain " knowledge of the plague's actual exiſtence, ſo ſhort a while before, in their Laza- " retto ſo near the city, a circumſtance alone ſufficient, on the very firſt ſymptoms " to make them perceive their error; and ſuch a general firm perſuaſion of its not " being peſtilential, will appear very difficult to be conceived. But it ought not to " be thought impoſſible by thoſe who reflect, that when God Almighty thinks proper " to ſcourge a people with the moſt terrible of his judgments, the councils of the " rulers are confounded, and thoſe who are choſen to watch for the public good, " operating ſolely with human judgment, too often err, deceiving themſelves and " their country. Such was the unhappy fate of the Meſſineſe; yet they were ſen- " ſible of the judgment of heaven againſt them, and attempted to appeaſe the Divine " wrath, by their religious ceremonies, making continual proceſſions for ſeveral " days together, at which all ſorts of people aſſiſting, and particularly, as is very " natural, thoſe who were infirm, the poiſon that in the beginning had appeared " ſo mild, not only gathered ſtrength by ſuch frequent communications, but dilated " itſelf into every part of the city, till, at laſt, it broke out as a general conflagra- " tion of combuſtible matter or wild-fire.

" From the 15th to the 31ſt of May, between three and four hundred people of the " lower rank periſhed, attended by the phyſicians, who were eye-witneſſes of the " ſymptoms, and yet perſevered in their firſt obſtinacy, to ſuch a degree, that in a " council held at the governor's palace, on the 31ſt of May, no leſs than thirty- " three phyſicians made a formal atteſtation, that it was not the plague. However, " in the beginning of June, the mortality increaſing to upwards of one hundred in " a day, the government determined to take the ſame precautions as are uſually ob- " ſerved in a plague, and conſequently iſſued out public proclamations for the ne- " ceſſary regulations, in ſuch a conjuncture, when a panic terror ſeized at once

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obſerves, might have been given, from the hiſtory of times paſt, and he makes no doubt, as human nature is always the ſame, that future times will produce more. It is better, continues he, to be deceived in deeming that to be a plague, which is not, and to make timely proviſion againſt it, than to neglect precautions becauſe they may happen to prove unneceſſary, and to procraſtinate defence, till the nature of the diſtemper be determined with the nice preciſion of a philoſopher[11].

" the people, and the city was in a manner abandoned, except by the magiſtrates " of the health and ſenate, who kept firm in diſcharge of their duty, and only one " of each magiſtracy ſurvived. But none of theſe orders were executed, the common " people could not be kept under any government, ſo that many who had ſhut " themſelves up in their houſes, began to think of providing themſelves by force " of money, not only with the common neceſſaries for their ſuſtenance, as flour, " rice, oil, &c. but alſo fire-arms and powder, to be able to make defence againſt " the fury of the populace, who would aſſuredly have committed open violence, " had they not periſhed ſo very ſuddenly by the diſtemper, which ſwept away the " greater part in a very few days.

" The principal mortality did not continue above twenty days, that is, from the " 12th of June to the beginning of July, when it ceaſed in a manner all at once, " occaſioned probably from their being no more matter for the poiſon to work upon: " Since, at that time, there only remained thoſe who were carefully ſhut up, or " thoſe who were recovered. The ſurviving being no more ſufficient to make pits " for burying the dead, the only method left was to burn them, and, at the latter " end of June, the governor permitted about ſixty ſoldiers, covered with pitched " canvas, and armed with a long pole with an iron hook, to collect together all " the dead bodies, as well thoſe in the ſtreets, as thoſe who had remained in the " houſes, when, in ſeveral parts of the city, they were burnt promiſcuouſly, men " and women, rich and poor; which, for many ſucceſſive days, cauſed a ſtench that " cannot be deſcribed, or conceived."

[11] " Altri eſempi ce ne ſono ſtati; ma pur troppo ce ne darà degli altri il tempo " avvenire, perche le teſte umane ſaran quelle di ſempre. Meglio è in tali caſi in- " gannarſi col prendere per effetivo contagio quello che non è, e provvedere per " tempo, benche ſenza biſogno, che il traſcurare gli opportuni ripari, per volerla far " da accurato filoſofo nel riconoſcere la vera eſſenza, e la qualita del malè." Muratori, p. 37.

Muratori's

Muratori's prediction has already been fulfilled at Marſeilles, and at Meſſina, and in this caſe, perhaps no warning will ever prevail over the popular propenſity to ſelf-deluſion. But the Council of Health, ſuperior to the prejudices and clamour of the multitude, whilſt it leaves no means untried to obtain the earlieſt intelligence, ought ſteadily to purſue ſuch meaſures as it may approve, without much regard to the diſcordant opinions of phyſicians, the abſence of eruptions, and the inſtances of thoſe about the ſick eſcaping infection. In times of danger, when it is impoſſible to arrive at certainty, the public ſafety juſtifies the proceeding on ſuſpicion; the inconveniency of a few individuals ought not to ſtand in competition with the general welfare, and every hour's delay, upon one ſuppoſition, leads to irreparable evils.

When the perſons removed on ſuſpicion prove to be infected, and, notwithſtanding the above early precautions, the contagion is found to ſpread in their ſtreet, or the adjoining ſtreets; the public ſhould be warned of their danger, that they may avoid communication, and the infected diſtrict ſhould be laid under more rigorous reſtraint.

That is to ſay, no perſons, without leave previouſly obtained, ſhould be permitted to enter or go out of the bounds publickly preſcribed by the magiſtrate.

All perſons, within theſe bounds, ſhould be enjoined to keep within doors, as much as poſſible; and due care muſt be taken to ſupply them with the neceſſaries of life, under the direction of civil officers: the poor ſhould be ſupplied at the public expence.

Thoſe who can conveniently retire into the country, may obtain permiſſion of the magiſtrate, together with a certificate of health, without which no one whatever ſhould be permitted to paſs. The certificates ſhould be delivered gratis. The encouraging people to leave the town, is very properly recommended by Doctor

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Doctor Mead[12]; but after the plague has made ſome progreſs, perſons retiring from an infected place ſhould be obliged to perform a ſhort quarantine.

Such as have no known retreat of their own in the country, muſt ſpecify the place whither they intend to fly, and obtain a paſs for that particular place: otherwiſe they ſhould be ſubject to impediments on the road. But permiſſion ſhould cautiouſly be granted for families to remove to other pariſhes of the ſame town, unleſs into empty houſes; becauſe it would only relieve one part at the expence of another; while the main object is to thin the town, and to prevent the contagion ſpreading to different quarters, or to the adjacent country, by means of the fugitives.

Thoſe who, from their condition in life, or other circumſtances, cannot leave the place, ſhould be ſtrictly enjoined, for their own ſakes, to ſequeſter themſelves in their own houſes, avoiding all unneceſſary communication with perſons without doors. The lower claſſes, who are maintained at the public expence, ſhould be compelled to this ſequeſtration; and, beſides the ordinary watch in the night, a number of extraordinary watchmen ſhould be appointed, to ſee the orders of the Council of Health carried into execution.

It is at this period, before the diſtemper has ſpread too far, that the attempt to extinguiſh it, by laying the infected diſtrict under a general quarantine, is likely to be attended with ſucceſs. Muratori, on this head, refers to P. Maurizio da Tolone, who has treated on the ſubject. But Muratori, though he ſeems highly to approve the meaſure, expreſſes himſelf in a doubtful manner of its ſucceſs in the beginning of the plague, eſpecially

[12] Mead, p. 99.

in

in large towns[13], as if the inſtances he had met with of its good ſucceſs, had been only in the decline of the ſeaſon, when the change in the air may be ſuppoſed to have co-operated.

The propoſal of Father Maurizio, was to the following purport[14]. After allowing a certain number of days for preparation, and for ſuch families, as were in a condition to retreat, to depart from the city, the lower claſs of inhabitants were to ſhut up in their own houſes, under pain of death; being provided with the neceſſaries of life at the public expence. Where the diſtemper had ſhown itſelf among the inhabitants of higher ranks, they were to be ſubject to the ſame law. The infected were to be immediately removed to a peſt-houſe, and the reſt of the family to a Lazaretto, from whence, after a quarantine, they were to return home, their houſes being previouſly fumigated.

This, where practicable, would certainly be the beſt means of putting a ſtop to that intercourſe, by which the infection is obviouſly ſpread. But in a large town, many obſtacles would ariſe to the carrying a meaſure, in appearance ſo harſh, into effectual execution, at a time when the popular apprehenſion runs ſo low, as it generally does in the infancy of the plague. This, however, is no objection in reſpect to ſmall places, or where the diſtemper is confined to one or two diſtricts, in a town. But in ſuch caſes, it ſeems reaſonable that no diſtinction of rank ſhould be made[15]; for though families of the better claſs may be leſs

[13] "Io, per me, non ſo preciſamente come rieſca, e foſſe per riuſcire in pra-
"tica, & maſſimamente in citta grandi, queſto remedio, che in teorica mi compariſce
"ſommamente utile, per non dire anche neceſſario." Muratori, p. 20.

For my part, I do not know preciſely the ſucceſs of the propoſed method, nor how it might turn out in practice, particularly in reſpect to large cities; but, in theory, it appears to me to be extremely uſeful, not to ſay neceſſary.

[14] Muratori, p. 18.

[15] "Ma ſe recordino bene tutti i principi, & magiſtrati, eſſere un punto di ſomma
"impor-

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leſs liable to infection, at this time, than the populace, yet their dependants and domeſtick ſervants may have dangerous connections; and while they are permitted to walk about, or to attend their maſters to the country, there is a riſk of their ſpreading the contagion. Where therefore the extinction of the plague is the object in view, all perſons indiſcriminately ſhould be laid under the ſame reſtrictions. Some days muſt be allowed for preparation, not for flight, (except to ſuch as will perform a quarantine) and every poſſible means ſhould be employed, by the police, to render the general impriſonment as comfortable as poſſible.

I conceive it needleſs to enter into a detail of the method of performing the general quarantine, as it may be found in the Traité de la Peſte, particularly in a ſuccinct Memoir of M. Joſſaud, who writes from his experience at Arles[16]. I ſhall therefore diſmiſs the ſubject, with this remark, that as the meaſure has been actually carried into execution at Milan[17], and other places, in the decline of the plague, it is reaſonable to think it will be more practicable in the beginning, when it will be unneceſſary to extend the quarantine ſo widely; in the mean while, the object in view is infinitely more important in the beginning, as the meaſure, if vigorouſly and ſucceſsfully proſecuted, may obviate that devaſtation, againſt which, in the decline of the plague, it is recurred to, as the laſt of human remedies[18].

" importanza il non avere allora, ne laſciar avere partialità per alcuno - - - - Un ſolo " peccato d'indulgenza puo portare l'eccidiô a un pubblico tutto." Ibid. p. 18.

But princes and magiſtrates ſhould ever hold it in remembrance, as a matter of the utmoſt importance, that, at ſuch times, they ſhould neither themſelves indulge, nor permit in others, a partiality for any perſon whatſoever. A deviation from this rule, in a ſingle inſtance, may prove fatal to a whole people.

[16] Traité de la Peſte, p. ii. p. 148. 163.

[17] Muratori, p. 20.

[18] " Ma ſe in fine biſogna ridurſi alla quarantena, o ſia a tal rinſerramento, per ſal- " vare le reliquie del popolo, fin' allora preſervate dal comune incendio: quanto " piu

But if this meaſure, for whatever reaſons, be not adopted, it will then be neceſſary to proceed with the regulations already begun.

While the infected diſtrict is employed in ſeparating the ſick from the ſound; preventing undue intercourſe; thinning the inhabitants; and purifying the houſes, for the reception of thoſe returning from quarantine; the other diſtricts ought to make arrangements for an event, which the public ſafety requires ſhould be conſidered as near at hand. They may perhaps eſcape altogether; but the police ſhould preſume they will not; and preparatory arrangements ought not be deferred till the danger approaches. In 1625, of a hundred and twenty-two pariſhes in London, one alone remained untouched[19].

It is now the time alſo, whilſt it may be done without endangering the reſt of the kingdom, to clear the city of the idle and vagabond; to ſuppreſs ſtreet beggars, and old clothes-men;

" piu gioverà e ſarà convenevole quando mai ſi poſſa, il tentare lo ſteſſo rimedio, e " ſcampo ſu i principi, per vedere di mettere in ſalvo la cittadinanza tutta?"

But, if in the decline of a plague, a quarantine, or the ſhutting up houſes, becomes a neceſſary meaſure, for the preſervation of the remainder of the people, who have, till then, eſcaped the common calamity: how much more reaſonable and beneficial muſt it be, wherever it is practicable, to try the ſame remedy, and defence, in the beginning, with a view to protect the whole inhabitants of the city?

It was remarked, by Orræus, in the late plague in Ruſſia, that, in ſeveral ſmall towns, the plague was effectually extinguiſhed, by the early exertions of the magiſtrates, but that the ſame meaſures did not ſucceed in large towns. " In civitatibus " vero majoribus, utpote Jaſſiæ, Kioviæ, Moſcuæ, precautionibus hiſce juſtiſſimis, " utut in infantia mali poſſibilibus, in effectum plenarium ducendis, multæ circum- " ſtantiæ remoras infeliciſſimas injecerant, quarum potiſſimas, privatum nempe " commodum tot prævalentium civium, a declaratione peſtis detrimentum capiens, " & incredulitam fere univerſalem, a ſumme culpabili conniventia medicorum & " chirurgorum, quamvis pauciorum ſuffultam, denominaſſe ſufficiat." Deſcript. Peſtis, p. 129.

[19] See Graunt.

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to remove all nuiſances; and ſtrictly to prohibit unneceſſary aſſemblies. For all which purpoſes, the orders formerly publiſhed by the mayor and aldermen of London, relative to theſe matters, as well as the advice given at different periods by the College of Phyſicians, may be conſulted, and revived with improvements.

The burying in churches ſhould be abſolutely prohibited, as alſo in ſmall church-yards ſurrounded with dwelling-houſes[20]. The dead ſhould be interred without the city, and as remote as poſſible at firſt, leaving the intermediate ſpaces for future occaſion, ſhould the mortality greatly increaſe; for it will be leſs inconvenient to tranſport the dead to a diſtance, at this time, than when the number comes to increaſe; tolling of bells, and all funeral pomp ſhould be aboliſhed, till better times.

The ſeveral hoſpitals, and poor-houſes, ſhould be particularly careful in the reception of objects of charity. It might, perhaps, be better, in ſuch times, to put a ſtop entirely to their reception; either providing a ſeparate acceſſory houſe, for ſudden caſualties, or treating the patients at their own houſes, by additional aſſiſtants. This precaution is the more neceſſary, becauſe, though the patients who preſent themſelves may have no ſuſpicious appearances, there is no anſwering for the ſtate of their families, or connexions; and the introduction of the plague to the common hoſpitals, has, in general, proved fatal to all the inhabitants.

[20] See, on this ſubject, a Tract, publiſhed at London, in 1721, entitled "Some "Cuſtoms conſidered, whether prejudicial to the health of the city."

"It is well known that ſeveral out pariſhes of this city and liberties are very "much ſtraitened for room to bury their dead; and that to remedy, in part, that "inconvenience, they dig in their church-yards, or other annexed burial places, "large holes or pits, in which they put many of the bodies of thoſe who are not "able to pay for better graves; and then thoſe pits or holes (called the Poor's Holes) "once opened, are not covered till filled with ſuch dead bodies; this is the caſe in "St. Martin's, St. James's, and St. Giles's in the Fields, and other places." p. 7. On the ſubject of burying in church vaults, p. 15.

Hoſpitals therefore ſhould be early ſhut up, and all communication with perſons without, except under the uſual regulations of quarantine, ſhould be ſtrictly prevented. The Hotel Dieu, at Marſeilles, was preſerved for ſome time by means of proper precautions; but the diſeaſe being introduced by the imprudent admiſſion of a female patient, in Auguſt, the officers of the houſe, moſt of the patients, and three hundred and ſeventy foundlings, out of four hundred, periſhed miſerably[21]. The General Hoſpital de la Charité, which made eight hundred beds, was preſerved entirely, by being kept ſhut up[22]; but upon the patients being removed to another place, they caught the infection, on the road[23]. At Moſcow, in 1771, the Imperial Orphan Hoſpital, in which there were about one thouſand children, and four hundred adults, was preſerved all the time of that dreadful plague; ſeven or eight perſons only, within the boundary, having been infected, and thoſe had ſecretly broke quarantine[24].

To the above arrangement it may be added, that the other diſtricts of the town, whilſt yet ſound, ſhould prepare an infirmary for the ſick, another for the ſuſpected, a third for convaleſcents, and a Lazaretto for perſons in quarantine. A ſurgeon ſhould be nominated to aſſiſt the ſearchers, and, ſhould it become neceſſary, to attend the infected. Different midwives, for the ſound and the ſick, ſhould be ſecured in time. A number of nurſes ſhould be provided, from among the poor, to be ready when called upon; and an apothecary's ſhop, well ſtocked with a few requiſite drugs, ſhould be eſtabliſhed for the ſervice of the poor.

It may alſo deſerve conſideration, whether it might not be adviſable, for each pariſh, to enquire ſtrictly into the ſtate of

[21] Relat. Hiſtor. p. 106. See alſo before, p. 240.

[22] See Traité de la Peſte, p. i. p. 355. Journal of Marſeilles, p. 60. See alſo before, p. 252.

[23] Ibid. p. ii. p. 138.

[24] Merten's, p. 95.

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the houſes of the poor[25]; to cauſe them to be thoroughly cleanſed; to ſupply ſoap and water and fire, for waſhing their clothes; to collect the wretched apparel, mattreſſes, coverlets, &c. which are not worth cleanſing, and beſtowing freſh in their ſtead, to deſtroy the ſtuff ſo collected. All this muſt be performed under the inſpection of proper ſuperintendents. It certainly will be better to do that in advance, which may contribute to preſerve the lower claſſes of the inhabitants, and which, in caſe of the infection reaching their houſes, will become at laſt indiſpenſably neceſſary; not to ſay any thing of the heavy expences attending peſt-houſes, &c. which, by theſe early precautions, might perhaps be ſaved.

The views of the police ſhould always be carried forward to the poſſible increaſe of the diſtemper. Each diſtrict, conſiſting of ſeveral pariſhes, according to their ſize or other circumſtances, ſhould provide a ſpot of ground at ſome diſtance from town, together with the materials for erecting temporary infirmaries, and Lazarettos: a burial ground ſhould alſo be included. As the diſtemper uſually paſſes progreſſively from diſtrict to diſtrict, though not regularly, there would be time ſufficient, if well employed, for making the preparatory arrangements now propoſed.

The immediate expence attending them will appear ſmall, when compared with the expected advantages. Each diſtrict ſtanding thus upon its guard, the diſtemper will meet with more difficulties, in making its way from the infected quarter; and if it ſhould happen to elude precautions, a diſcovery will probably be made before it can have ſpread far; the alarm, on its diſcovery, will be leſs than if the diſtrict had been wholly unprepared; and, what is of much more conſequence, the magiſtrate will find himſelf at once in a ſituation to act effectually for the public welfare, without the embarraſſing impediments inſeparable from the want of preconcerted diſpoſition.

[25] Mead, p. 109.

But

But, in order to realiſe the advantages above alluded to, it will be neceſſary to carry the regulations into immediate execution; every day's delay is of fatal conſequence. No complaiſant indulgence to rank, or partiality to connexions; no deluſive hopes of a change for the better; no regard to the diſcordance of medical opinions; nor no apprehenſion of popular clamour, ſhould influence the magiſtrate, in the diſcharge of his duty. Compaſſionately attentive to the unhappy ſufferers, he ſhould exert all his power to alleviate their diſtreſs. But to extend undue indulgence to a few individuals, at the riſk of the community, is to betray a ſacred truſt, and to be wanting in compaſſion to thouſands.

CHAP. III.

Various regulations in the ſecond period of the plague—A public eſtabliſhment propoſed, for lending money upon pledges—Perſons falling ſick in houſes ſhut up—Temporary Lazarettos—Precautions for the preſervation of the acting magiſtrates.

WHEN the precautions taken in the firſt ſtage of the plague, fail of ſucceſs, and the diſtemper is found to have inſinuated itſelf into ſeveral quarters, though all hopes of extinguiſhing it may be at an end, its future progreſs may in ſome degree be reſtrained by a vigorous exertion of the police.

People of rank who are not infected, together with their numerous attendants, ſhould retreat to the country, before matters grow worſe; which will not only be the means of more effectually ſecuring their own ſafety, but will leaſt endanger that of the places to which they retire. In reſpect to themſelves, they may have been very little in the way of infection; but there is

no

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no truſting to the prudence of their domeſtics. Thoſe neceſſarily detained in town, ſhould ſend their families, and ſuperfluous attendants, into the country.

To all other perſons whatever, whoſe circumſtances will admit of removing, and who are not detained by public duty, it ſhould be recommended to leave the town, with all expedition, or to ſend their families into the country. Every day's procraſtination will render their flight leſs ſecure, and more difficult; as it is to be hoped that the country towns, and villages, would have early recourſe to meaſures for their own preſervation: beſides, when flight is too long deferred, there is a riſk of carrying the infection along with them, into the place of refuge.

The wiſdom of the legiſlature muſt determine in regard to the courts of law, which, in former times, have been removed from London. But the old regulations reſpecting public diverſions, and aſſemblies, ſhould undoubtedly be revived; and, conſidering the great increaſe of public entertainments, of late years, their enforcement will be more neceſſary than ever[1].

It may be expedient alſo to ſhut up the churches. This meaſure, which neceſſity enforces at the height of great plagues, if adopted early in the ſeaſon, might prevent the conſequences which have often been obſerved to attend the concourſe at religious aſſemblies, and at proceſſions, in Roman Catholic countries[2]. The clergymen of the ſeveral pariſhes, might be uſefully employed in aſſiſting at the councils of the police; and, in caſe of neceſſity, ſome of the churches might be ſo arranged as to ſerve for the reception of families in quarantine, till more convenient places could be provided. In the Roman Catholic countries, the numerous convents afford commodious houſes for Lazarettos, and are often employed for that purpoſe; the churches

[1] Muratori, p. 41.

[2] Marſeilles and Meſſina.

even,

even, in certain emergencies, have been converted into peſt-houſes[3]. This expedient ought never to be recurred to, except in urgent neceſſity; but objections to it, which have been overruled in countries more ſuperſtitious than England, would, it is to be hoped, be eaſily overcome here.

Places within the town, in large cities, for the reception of the ſuſpected, of the infected, of convaleſcents, and of families obliged to perform quarantine, were recommended as leſs liable to objection, and leſs alarming at the beginning, than the tranſporting ſuch perſons, whilſt yet few in number, to ſome diſtance. But when ſubjects multiply in the increaſe of the plague, it will be adviſable to remove them, as ſpeedily as poſſible, out of town. The reaſon for adviſing the infirmaries to be erected at ſome diſtance, is leſs from an apprehenſion of their communicating the infection to ſurrounding houſes, than with a view of preventing their being overwhelmed in the height of the plague, as at Marſeilles, by crowds wandering from their houſes.

The preventing all avoidable communication, and that early, before the diſtemper has ſpread, is, by the concurrent teſtimony of thoſe who have written from experience, allowed to be a main object claiming the attention of police. In the ſucceſſive attack of pariſhes, it becomes of more and more conſequence, becauſe there can be no longer doubt of the preſence of a peſtilential conſtitution of the air, and no rational hope remains of the contagion declining before the approach of winter.

Perſons who have it not in their power to go into the country, and whoſe houſes are commodiouſly circumſtanced for ſhutting up, after the manner of the Levant[4], ſhould certainly have recourſe to that expedient, before the riſk increaſes of their ſhutting up with the infection, contracted either by themſelves or

[3] Genca.

[4] Ruſſell's Natural Hiſtory of Aleppo.

their

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their domeſticks[5]. But for the encouragement of this practice, and to render it more generally practicable, it will be neceſſary that the police be particularly careful to eſtabliſh markets in each pariſh, well ſupplied with the neceſſaries of life; and to have a ſufficient number of proveditores for each ſub-diviſion, who ſhould not be at liberty to ſtroll indifferently into all quarters. Theſe proveditores, though unavoidably expoſed by frequenting the ſtreets and markets, ſhould be ſtrictly prohibited from having communication with perſons known to be infected, and ſhould have proper places appointed for their living in ſmall parties together, inſtead of returning at night, perhaps to diſtant ſtreets, to their families. The neglect of precautions of this kind, in reſpect to perſons ſhut up, endangers their being reduced, by the loſs of the proveditores, to the ſad neceſſity of coming abroad to ſeek proviſions for themſelves; which was in ſome meaſure the caſe at Toulon, where the proveditores, not being properly reſtricted, carried the infection into their own families, as well as into diſtricts yet ſound, and almoſt all of them periſhed[6].

Particular care will alſo be requiſite, to prevent thoſe who bring in proviſions from the country, from mingling with the citizens; and to protect the town retailers of proviſions, and neceſſaries, from being crowded; which may be effected by barriers, &c. under the inſpection of pariſh officers. Particular regard ſhould be had to the bakers, as, in moſt plagues, they have been obſerved to ſuffer in a remarkable proportion, and the loſs of them is more generally felt, than that of moſt other tradeſmen. The retail of that article ſhould be diſtributed to many ſhops, diſtinct from the workhouſes of the bakers, in order to prevent concourſe at a few; and theſe ſhops ſhould be guarded with barriers at the public expence.

[5] Muratori, p. 55.

[6] Traité de la Peſte, p. ii. p. 139.

Shops

Shops not vending the neceſſaries of life, had better be ſhut up, by a general recommendation, if not by an expreſs order. Indeed, the want of cuſtomers uſually produces that effect, ſooner or later; at leaſt in reſpect to numbers of thoſe dependent on luxury, or on the ſale of frivolous articles, which are little in requeſt at ſuch times. Many of them might be converted into retail ſhops, for the neceſſary articles of life, as they are occaſionally, at other times, into lottery offices.

Diſtreſs, ariſing from the inevitable ſtagnation of trade, and want of employment, muſt reduce many, above the rank of parochial poor, to the neceſſity of raiſing money for immediate ſubſiſtence, upon pledges. The ſaleſmen, or purchaſers of old clothes, have already been ſuppoſed prohibited from carrying on their trade, agreeably to the uſage of ancient times[7]; but I find no regulations reſpecting pawnbrokers, though their traffic, in the time of a plague, ought on ſeveral accounts to be reſtrained: particularly as it may prove a ſtrong inducement to the pilfering, or ſecreting infected goods, by preſenting ſo eaſy a mode of diſpoſing of them.

In Italy, where they have public eſtabliſhments for lending money on pledges, under the denomination of Monte di Pietà, they lock up all pledges depoſited before the plague in a ſeparate warehouſe, to avoid their being mixed with thoſe newly brought in. Private pawnbrokers are obliged to obſerve the ſame precaution[8]. It appears highly deſerving conſideration, whether, in times of peſtilence, ſomething, in imitation of this, might not be deviſed in every pariſh of London. I ſhall not pretend to enter into the manner of carrying ſuch a plan into execution, but public offices, like the Monte di Pietà, would be more ſecure repoſitories for the property pledged, than houſes of obſcure pawnbrokers; while the goods brought in, if ſuſceptible of infection,

[7] Orders for Health, by the Lord Mayor, 1635. 1665.

[8] Muratori, p. 81.

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might be purified, and kept apart from others. Stolen goods, no doubt, might ſometimes be depoſitated there, but not ſo often as with private dealers, whoſe avarice, excited by the proſpect of great gain, might get the better of the dread of contagion; and in caſe of the houſe being attacked by the diſtemper, the property lodged there, would not only be, in all probability, loſt to the owners, but infectious articles might come to be dangerouſly diſperſed. I ſay nothing of the charity in ſupplying thoſe in want, with a much more adequate advance on their pledges, than is to be expected from private hands.

The retreat of many into the country[9], and the number of families who, remaining in town, would ſhut up in their own houſes[10], would of courſe conſiderably diminiſh the concourſe in the ſtreets, and render it ſafer for thoſe whom duty required to walk about. It would alſo render it eaſier for the magiſtrates to attend the various calls of their arduous office; particularly in regard to the lower claſs of people, among whom the plague is generally found to make terrible havock, and where irregularities have a great ſhare in ſpreading the contagion.

Phyſicians, ſurgeons, apothecaries, nurſes, ſearchers, fumigators, officers of police, and all who have communication with the infected, ſhould be obliged to carry a badge of diſtinction, when they appeared in the ſtreets, and ought not, on any account, to enter any houſe, ſuppoſed clean, their own excepted. The ſound houſes which are ſhut up, ſhould admit no medical perſons, or others from without, except in extreme neceſſity; and in caſe of any one falling ſick of an ordinary diſtemper, wherein medical aſſiſtance cannot be diſpenſed with, the patient ſhould be removed to a ſeparate apartment, and debarred intercourſe with the reſt of the family, till ſuch time as the neceſſity of admiſſion of ſuch medical perſons ceaſes. In moſt chronic ailments, advice may be given without entering the houſe.

[9] Journal of the Plague Year, p. 87.

[10] Ibid. p. 241.

If

If in a houſe ſhut up any perſon ſhould be taken ſuddenly ill, he ſhould immediately be ſeparated from the reſt of the family, and it would be better to allot a particular chamber for that purpoſe, under the name of Infirmary. In this ſituation, he might be viſited, not by the common ſearchers, but by others who do not viſit promiſcuouſly in the pariſh, and who, like the medical attendants before alluded to, keep out of the way of infection, as far as is in their power. Medical perſons of this deſcription ſhould be retained in each diſtrict, which would leſſen one ſtrong motive for concealing ſickneſs, in houſes ſhut up, by removing the apprehenſion of the infection being introduced, by the common ſearchers, into places where it was not before: added to which, will be an aſſurance of not being ſeparated from their families, except on very ſtrong preſumptions of expediency.

It has been recommended as an early precaution, in times of peſtilence, for the preſervation of pictures, hangings, or other ſuperfluous furniture, ſuſceptible of infection, and liable to be injured by the ſtronger fumigations employed in the purification of houſes, to remove all ſuch goods into a ſeparate room, which, if the doors were ſealed up, and the keys delivered to the magiſtrate, might be exempted from fumigation afterwards, in caſe of the houſe being infected [11].

In large commercial towns, it may likewiſe be matter of deliberation whether an early embargo ſhould not be laid on trade; and whether it would not be a prudent meaſure for the merchants to ſhut up their warehouſes, depoſiting their keys with a proper magiſtrate. This, in many caſes, would render the purification of merchandiſe, as practiſed with infinite labour at Marſeilles, unneceſſary, and might contribute to a ſpeedier re-eſtabliſhment of commerce; becauſe ſuch merchandiſe, accompanied with authentic certificates, would certainly be leſs liable to ſuſ-

[11] Muratori, p. 81.

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picion than ſuch as had remained in open warehouſes all the time of the ſickneſs, and might therefore be exported with more ſafety.

The tranſporting the ſick from their houſes to the infirmaries, and the ſound part of their families to the Lazarettos, for quarantine; the fumigating, cleanſing, and ſecuring the furniture of the houſes, ſo evacuated; the providing thoſe ſhut up with proper neceſſaries; diſtributing the induſtrious poor into wider habitations, and finding them in employment; the keeping a ſtrict watch over the day labourers, and the tradeſmen, whoſe buſineſs muſt occaſionally call them from home; the enforcing rules for the ſtrict maintenance of good order, and the prevention of thefts and robberies; and laſtly, the exemplary puniſhment of certain crimes, (eſpecially the pilfering or concealing infected goods) in a ſummary manner, to make the more impreſſion, and for which, (if not already in the power of the magiſtrate) the legiſlature ſhould make conditional proviſion; are among the objects to be kept in view, by the police, and are to be obtained by a detail of ordinances adapted to particular ſituations and circumſtances. Of which ordinances, ſpecimens may be collected from thoſe formerly promulgated in England, Italy, and France[12].

The management of the temporary infirmaries for the infected, and the quarantine Lazarettos, which are ſuppoſed to be at ſome diſtance from town, demand likewiſe particular attention, and ſhould be intruſted to perſons of probity and humanity. In Roman Catholic countries, offices of this kind are often committed to eccleſiaſtics; but, in England, the number of that order is too ſmall to be ſo expoſed. The convents, in like manner, furniſh uſeful aſſiſtants, of both ſexes, who devote themſelves to the dangerous ſervice in the infirmaries, and are a check upon the

[12] Orders againſt the infection of the plague, 1603. Certain neceſſary directions, 1636. Orders for health, 1636 and 1665. Muratori. Gaſtaldi.

mer-

mercenary ſervants. Both theſe reſources being wanting in England, other expedients muſt be fallen upon; for a peſt-houſe ill regulated, of all ſcenes of human miſery, preſents the moſt dreadful.

The infirmary intended for thoſe who are in circumſtances to pay their own expences, ſhould be ſeparate from that of the poor, maintained by the public; but both ſhould be as airy and commodious as poſſible. For the reception, in the latter, of ſuch as are confined to bed, ſingle chambers ſhould be allotted; thoſe with ſlighter ſymptoms, able to walk about, may be diſpoſed in larger chambers, or in wards, but not crowded.

The Lazaretto for convaleſcents may be arranged in the manner before deſcribed, that is in wards; but that intended for families in quarantine, which have been removed from infected houſes, muſt be ſo contrived as to afford diſtinct apartments for each family, of the better claſs of people, and airy wards for the poor.

Proviſion for the accommodation of the ſick of the better claſs will be attended with leſs difficulty, becauſe bed-linen, and neceſſary apparel, will be ſupplied from their own houſes; a circumſtance to be attended to at the time of their removal. But the poor will require to be ſupplied with theſe articles, at the public expence; for it will be better to furniſh them with linen belonging to the hoſpitals; and either to preſerve what they bring with them till they recover, or to deſtroy it if not worth preſerving. Their beds, or mattreſſes, ſhould be brought along with them; and if they recover, a freſh bed will be found them when ſent to the convaleſcent Lazaretto. Their own clothes alſo, after being ſmoked and purified, ſhould be returned to them; and, when diſcharged, they ſhould receive a bed, in lieu of that they left behind.

Of the convaleſcents of higher rank, many will probably leave their linen, &c. behind them, which may be applied to the ſervice of the foul or convaleſcent Lazaretto, after being thoroughly ſmoked and waſhed; but the clothes left in the Lazaretto ſhould on no account whatever be permitted to become the perquiſites of nurſes or ſervants[13].

The procuring perſons properly qualified for the adminiſtration of the infirmaries, and Lazarettos; the providing medical attendants, with other aſſiſtants and inferior ſervants; the ſupplying the various neceſſaries daily required; and ſuch a ſuperintendence of the whole, as may prevent the diſorder and confuſion ſo frequently prevalent in hoſpitals of this kind, is a difficult, but material part of the buſineſs of police, and which, conſtantly increaſing as the diſtemper ſpreads, calls loudly on the opulent citizens, who have retreated from town, for their charitable aſſiſtance.

High wages will be neceſſary, particularly at the beginning, to encourage perſons to undertake the dangerous offices of nurſing the ſick, ſerving in the foul laundry, &c. but afterwards, the recovered poor ſhould be invited to thoſe offices, by an actual temporary proviſion for their families, and a promiſe of future reward.

In theſe hoſpitals, the kitchen and bakehouſe, &c. ſhould be ſeparate from the main building, and the cooks, and others employed there, ſhould have no communication with it except by a barrier, at which they ſhould deliver the victuals, to be taken away by the ſervants within.

[13] It ſeems to have been a great abuſe in ſome of the Lazarettos in Genoa, the dividing the apparel of the deceaſed among the ſervants of the houſe, and the buriers of the dead. Lazaretti di Genoa, p. 124. 481. See before, p. 259.

The apartments for the officers of the houſe, and the medical attendants, ought alſo to be ſeparate from the hoſpital, in order that they may have no more intercourſe with the interior of the houſe, than is abſolutely neceſſary; their preſervation from the diſeaſe, being of material conſequence to the welfare of the whole.

For the ſame reaſon, the acting magiſtrates in each pariſh, ought to be ſtudiouſly careful of their own health. Commodious houſes ſhould be allotted them, where they may live in ſmall companies. No more domeſtics than are indiſpenſably requiſite ſhould be retained, and thoſe ought to be laid under the ſame reſtraint as perſons in houſes ſhut up; proviſions, and every thing elſe from without, ſhould be received with the ſame precautions.

At Toulon, in 1721, the magiſtrates, together with their attendants and domeſtic ſervants, amounting to above fifty ſouls, who dwelt in the town-houſe, all periſhed. The diſtemper was introduced by the laundreſs, and ſpread thus fatally from want of due precaution. "Rien n'y manquoit, parfums, remedes, mais "la ſeparation y'ayant d'abord manqué ils y'ont tous péris[14]." It is certainly very difficult to regulate ſo great a number, living in the ſame houſe, and therefore it is better they ſhould be divided into ſmaller companies. The conſul of Toulon, and another gentleman, who lived in a houſe by themſelves, eſcaped.

The magiſtrates, who in the exerciſe of their office muſt occaſionally go about, ſhould have a guard to attend them, and no perſon whatſoever ſhould be permitted to approach ſo near as to touch them; proper officers ſhould attend alſo to put their orders into inſtant execution. Petitions, reports, and papers of every kind ſhould be received with the ſame precautions as papers at a prattique houſe, that is, they ſhould be firſt dipped in vinegar, and then ſmoked with ſulphur.

[14] Traité de la Peſte, p. ii p. 137.

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The halls in different quarters allotted for the deſpatch of public buſineſs, ſhould be put under the care of prudent houſe-keepers, who ſhould themſelves remain ſhut up, in order that the magiſtrates may be as little expoſed to infection, as the nature of things will admit. For a like reaſon, in caſes where parties in litigation muſt make their appearance, and witneſſes are to be examined, juſtice ſhould be adminiſtered in a church porch, or ſome other ſuch place, and not in the ſtifling air of a common court-houſe.

As the preſervation of the magiſtrates is of eſſential conſequence, ſo proviſion ſhould be made, in caſe of ſickneſs or death, for ſupplying vacancies, either from the magiſtrates of the preceding year, or from others, who, in the mean while, ſhould remain ſhut up in their houſes, or retire to the country, till their ſervice be required. An arrangement of this kind might prevent confuſion.

Theſe are ſome of the moſt material points, reſpecting the police, in the ſecond period of the plague; and where circumſtances have admitted of their being duly attended to, they have been found to contribute greatly to alleviate the public calamity. But in large cities, the magiſtrates muſt expect to meet with obſtacles, and unforeſeen difficulties, which, by the earlieſt precaution, cannot perhaps be obviated, ſo as not to leave room for the exertion of that ſagacious ſelection of means, that promptitude in expedient, that firm adherence to what is calmly judged to be right, and that benevolent public ſpirit, which, in ſuch diſaſtrous times, are required to ſupport their credit, and to ſecure ſucceſs in the adminiſtration of the police.

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Regulations in the third period of the plague—Perſons who have ſhut themſelves up in their houſes, ſhould perſiſt courageouſly—Country towns and villages ſhould uſe precautions for their defence—Regulation of inns on the road—Viſitors of infected families, to be ſelected from perſons recovered from the plague—Burial of the dead—Reception of proviſions at the barriers, and diſtribution of them to the interior parts of the town—Magiſtrates, and parochial clergy, ſhould ſhow themſelves occaſionally in the ſtreets.

IN the third period of the plague, the general diſtreſs of the people is ſuppoſed to arrive at its height, and the cares and embarraſſments of the magiſtrate to increaſe in proportion. Sometimes, indeed, the devaſtation overleaps all bounds, anarchy enſues, and, on all hands, ſcenes ſhocking to humanity preſent themſelves. But this ſeldom happens, except where early precautions have been neglected, and it is to be hoped, under Divine Providence, will never happen in Britain.

The regulations, detailed in the preceding chapter, ſhould be continued in this period, till ſuch time as the increaſed number of ſick, renders it impracticable to carry ſome of them longer into execution. Where the plague rages in a moderate degree, this will never be the caſe; but circumſtances may be ſuppoſed, wherein it will be impoſſible to tranſport all the ſick from their houſes, or to find room for their reception in the peſt-houſes out of town. Other meaſures muſt therefore be adopted.

In houſes of the middle, and higher ranks, the ſick might be left in the houſe, with one or two of the family, ſhould they voluntarily offer their attendance. The remaining ſound part of the family, ſhould, if poſſible, be ſpeedily removed, and the evacuated apartments be ſhut up by the magiſtrate. In this con-

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juncture, arrangements may be made in churches, public halls, &c. for the reception of ſuch families as cannot find other places of retreat. Each family, as far as can be, ſhould live ſeparately, and when any one happens to fall ſick, he muſt immediately be removed to a room in his own houſe.

In large houſes, conſiſting of ſeveral floors, the healthy part of the family, may be permitted to remain in that quarter of the houſe, the moſt remote from the chamber of the ſick; and they ſhould conduct themſelves, in all reſpects, in the ſame manner as ſound families regularly ſhut up, admitting no perſons from without, and cutting off all communication with the ſick and their attendants, within doors. The removal of the ſound to another houſe, where it can be done, is however always a preferable expedient. The houſe containing the ſick and the healthy, is to be marked as infected, and acceſs denied to all but thoſe immediately neceſſary about the ſick: the healthy part of the family muſt be ſupplied, in the ſame manner as other families ſhut up. The perſons, thus circumſtanced, by obſerving due precaution, may certainly defend themſelves from the contagion; but the great danger to be apprehended, ariſes from the difficulty of ſtrictly maintaining that precaution, under the ſame roof. I have known many inſtances of large families defending themſelves, by cutting off all communication with the infected chamber. But the eaſtern houſes, by the diſpoſition of their apartments, are better adapted for this than the European.

The number of houſes in this manner converted into infirmaries, will, notwithſtanding the increaſe of the diſtemper, make more room in the peſt-houſes, which may now be allotted to the poor of the lower claſs, whoſe ſick ought as much as poſſible to be removed out of town. But ſhould the number exceed the capacity of the infirmaries, which ought never to be crowded, after tranſporting as many as can be commodiouſly lodged there, the reſt ſhould be removed from the ſmall houſes, to larger ones in their own

own quarter; the healthy being all along, as far as it can be done, ſeparated from the ſick. The buſineſs of police, in this reſpect, will be much expedited, by the having attended to the early precautions, formerly recommended, regarding the poor.

Perſons regularly ſhut up, inſtead of being diſmayed by the increaſing mortality, and giving way to deſpair, ſhould reſolutely perſevere in the means which have hitherto preſerved them, with an aſſurance, juſtified by repeated experience, that if undue communication be rigidly avoided, they have very little to apprehend [1]. Nor need inſtances of infection, in houſes long ſhut up, raiſe unneceſſary alarm. Such accidents muſt of courſe ſometimes happen; for in a multitude of families ſhut up, all will not be equally careful; and, whatever may be ſaid to the contrary, where the misfortune happens, negligence, or wilful breach of rules, are to be ſuſpected. In houſes that have been only a ſhort while ſhut up, accidents of this kind may reaſonably be expected; for every day's procraſtination, after the diſtemper begins to ſpread, greatly increaſes the chance of ſhutting up with the infection lurking in the family. But on no account ſhould thoſe who have hitherto been preſerved, and are commodiouſly circumſtanced, be impelled by their fears, or allured, from their houſes, to ſeek refuge in the country, or elſewhere; the diſtemper now raging tends faſt to its decline, and they are leſs expoſed to infection in the midſt of the infected city, than they would be in attempting to remove, at a time when every avenue of flight is beſet with danger.

The embarraſſments of the magiſtrate are likely, at this period, to be increaſed, by the loſs of the ſubordinate officers of police, from ſickneſs, death, or flight. Of the proveditores, in the ſervice of houſes ſhut up, many may be ſuppoſed to have periſhed, and muſt be replaced by others; for nothing can more materially promote the ſafety of the citizens, than the preventing thoſe who have been all along ſhut up, or ſuch as have been

[1] Journal of the Plague Year, p. 66.

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removed from infected houſes into quarantine, from being reduced to the neceſſity of coming abroad in queſt of proviſions, at a time when the diſtemper is moſt contagious. The markets, at the ſame time, run the riſk of failing, from the terror and flight of thoſe who uſed to ſupply them; diſorder of various kinds is apt to creep in every where, and the facility of committing crimes, and of avoiding detection, invites to the perpetration of ſome of a nature unheard of at other times.

Beſides theſe embarraſſments, againſt which the legiſlature, and the wiſdom of the magiſtrate ought previouſly to have provided, the rapid increaſe of the mortality will require conſtant recruits of thoſe who remove and bury the dead, numbers of whom may be ſuppoſed to have periſhed. The galley-ſlaves proved a reſource at Marſeilles and Meſſina. At Genoa, perſons were allured by being allowed the ſpoils of the dead. This laſt was an execrable expedient, and in its conſequences was attended, beſides encouraging rapine, with great danger to the community, from the diſperſion of infected ſtuff[2]. In England, for want of ſlaves, convicts might perhaps be induced to undertake the employment, under certain conditions. Some perſons alſo, particularly ſuch as already have had the plague, might be procured by high wages.

Next to the ſecuring proviſions for the living, no duty is more urgent than that of the ſpeedy interment of the dead[3]. In the height of the plague, every hour's delay multiplies the evil; and of the numerous train of calamities at Marſeilles, Meſſina, and other places, the accumulation of dead bodies in the ſtreets, and in the houſes, occaſioned the moſt dreadful embarraſſment to the police[4]. The time required to tranſport bodies to diſtant burying grounds, may render it neceſſary to open trenches nearer the town, than at firſt, but burying within the town ſhould all along be avoided, as much as poſſible. Whether quick lime

[2] Lazaretti de Genoa, p. 124.
[3] Journal of the Plague Year, p. 206. 214.
[4] Relation Hiſtorique, p. 161.

ſhould

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ſhould be employed, is a ſubject upon which opinions differ, and which I ſhall not pretend to decide. Doctor Mead recommends burying deep in the earth, and covering with the exacteſt care, but ſays nothing of lime; the Italians and the French uſe lime, and the practice ſeems to be approved of in the advice of the College, in 1665, for the firſt time, there being no mention of it in their directions of earlier date. In the manner lime is often applied, it cannot be of much utility, a great part being loſt, or unequally diſtributed, in throwing it into the trench[5]; and unleſs there be little or no doubt of the advantages propoſed by it, the labour and expence had better be ſaved, at a time when both can be applied to better purpoſes, particularly in white-waſhing the habitations of the poor.

Connected with the clearing the town of the dead bodies, is the keeping the ſtreets in all other reſpects ſweet. Directions on this head are found in the old orders for health by the Lord Mayor; but the firſt article, obliging houſeholders to pare the ſtreets, before their own doors, though proper at the beginning, cannot be obeyed at the height of the plague, becauſe many houſes and ſhops are then ſhut up, or uninhabited: the office muſt therefore devolve on the magiſtrate.

It may naturally be expected, at this period, that numbers who have hitherto remained in town, may be tempted, at all events, to fly from ſuch ſcenes of deſolation and horror; nor will it be in the power of the magiſtrates to attend ſo ſtrictly as at the beginning, to the applications for paſſes. The adjacent villages and county towns ſhould therefore be more ſtrictly on their guard, (having before made preparation) and ſhould oblige all tra-

[5] On the ſubject of lime, ſee Le Lazaretti de Genoa, lib. ii. p. 291, where it is obſerved, that a trench, containing a hundred bodies, will be ſufficiently covered with fifty baſkets of lime, whereas the ſame number of bodies buried in ſeparate graves, would require two hundred baſkets. Five ſpans of earth are conſidered to be ſufficient for covering the body.

vellers,

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vellers, eſpecially thoſe who have no paſſports, to perform a certain quarantine, previouſly to their admiſſion.

Particular attention will be required to inns upon the high road, which, by the promiſcuous reception of travellers, muſt neceſſarily be much expoſed to danger, and a dread of loſing their cuſtom will be a temptation to conceal the diſtemper, ſhould it find its way into them. In the orders by the King, publiſhed in 1603[6], the ſigns of infected inns were commanded to be taken down, which ſeems to be a very proper precaution; but, ſince that time, inns have been ſo greatly multiplied, that it might conduce to the public ſafety, to appoint particular inns ſolely for the reception of perſons coming from ſuſpected places, after their paſſes had been examined by the civil magiſtrate; thoſe coming from places actually infected, ſhould be obliged to perform a quarantine, previouſly to their admiſſion at any inn. All other inns ſhould give a daily report, to the magiſtrate of the place, of the gueſts they receive; and travelling in the night-time ſhould be ſtrictly prohibited, in the vicinity of infected, or ſuſpected places.

It were well alſo, if the country towns, through which the public roads paſs, were provided with proper places, at a diſtance from other houſes, whither perſons taken ill at the inns might immediately be removed, and properly attended; for, at ſuch times, every ſudden illneſs is to be ſuſpected, and it would be ſome inducement for travellers not to conceal their indiſpoſition, if they knew they were not to be abandoned upon the diſcovery of it, but treated with equal tenderneſs as at the inn itſelf.

Towns more immediately connected with an infected place, ſhould very early take alarm, and by precautions, ſimilar to what have before been recommended to the ſeveral pariſhes in the

[5] Article v.

capital,

capital, provide for their internal ſecurity, leaſt their barriers and Lazaretto, to which they ought at firſt to have had recourſe, ſhould fail in their defence [7].

Theſe precautions to prevent the ſpreading of the infection in the country, may much more eaſily be carried into execution in villages and ſmall towns, than in extenſive and populous cities; and it may be remarked, that by the ancient orders of 1603, againſt the infection of the plague, the juſtices in the ſeveral counties, being inveſted with full power for carrying regulations into execution, were commanded to make a report of their proceedings, once every three weeks, to the Lords of the Privy Council. Care alſo was taken to make due proviſion for the maintenance of the infected poor, and to prevent general communication with the ſick. A principal defect was the not more perfectly ſeparating the healthy part of the family, from the diſeaſed.

But at this diſaſtrous period, the city magiſtrates, leaving to the council of health, the care of giving directions to the country diſtricts, will find ſufficient employment in carrying their own regulations into execution, as exactly as circumſtances will permit; and more eſpecially in averting from their half-deſolated town, dearth, popular tumult, profligacy, and the extreme of human calamities, in ſuch times, the coacervation of putrifying corſes in the houſes, and in the ſtreets.

For the prevention of abſolute dearth, precautions ſhould have been taken long before the diſtemper arrives at ſuch a height; but, beſides theſe, the interpoſition of the council of health, with thoſe places from whence proviſions are derived, will be conſtantly required, to procure daily ſupplies, in order to prevent prices being enhanced, and the public granaries, or magazines, from being too haſtily exhauſted.

[7] Journal of the Plague Year, p. 229.

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The perſons who bring proviſions from the country, ſhould be prohibited from having too near an intercourſe with the citizens, which to themſelves might prove fatal, beſides conveying the infection to places yet free. For this reaſon the buſineſs might be tranſacted at certain barriers, without admitting the country people into the interior of the town[8]. Perſons from ſuch country towns as are not yet infected, ſhould be appointed to ſuperintend, whoſe intereſt it would be to ſee the regulations, intended to prevent the malady from ſpreading, duly enforced.

The tranſporting proviſions from the barriers to the markets in the interior parts of the town; the ſeeing a fair partition made to the ſhops; the diſtribution of neceſſaries to the poor, to the ſound families ſhut up, and to thoſe in quarantine, &c. will require many overſeers ſubordinate to the magiſtrate. Theſe ſhould be perſons, in whoſe honeſty ſome degree of confidence can be placed; and as, in the diſcharge of their duty, they muſt themſelves be expoſed to conſiderable danger, ſuch perſons, where vacancies are to be filled up, ſhould be ſought for, among the induſtrious order of inhabitants lately recovered, many of whom may, by proper encouragement, be induced to undertake an eſſential ſervice, attended with much leſs riſk to them than to others.

Some matrons alſo of the ſame claſs, and in the ſame circumſtances, inveſted with authority to ſuperintend the nurſes, &c. might be employed to viſit occaſionally in the infected houſes, at different hours from the medical aſſiſtants. If a viſitation of this kind be found requiſite in regular hoſpitals, it muſt be much more ſo in the numerous private houſes, now converted into hoſpitals, where wretched families, deprived, by death or ſickneſs, of their natural protectors, are expoſed to a variety of evils, which might probably be obviated, or alleviated by ſuch an interpoſition. It would, moreover, be ſome check on the menial ſervants who attend the ſick, and contribute ſomewhat to the

[8] Journal of the Plague Year, p. 94.

pre-

prevention of crimes, and diſorders in the interior of families, which, but for the facility of eſcaping detection, would more ſeldom be thought of, or committed.

I have, before, had occaſion to mention the reſources of the Italian ſtates, in the various religious orders of both ſexes, who are often employed in the offices we are now talking of. Some of whom devote themſelves voluntarily to the moſt dangerous ſervices; and all are encouraged, upon ſpiritual grounds, to exert themſelves in charitable acts of aſſiſtance to the afflicted, in times wherein they are ſo much wanted [9]. Such as determine to expoſe themſelves, deliver in their names to their reſpective ſuperiors, by which means it is known where application may be made, when occaſion requires [10].

In Proteſtant countries, the ſubjects are few from whom ſervices of this kind are particularly to be expected; the motives for thus devoting themſelves are leſs powerful, and other inducements, than abſolutions and indulgencies, will be required to induce many to riſk their own lives in the ſervice of others. The clergy, however, with little danger to themſelves, may, in thoſe times, be actively and uſefully employed. The exerciſe of many dangerous functions about the ſick, deemed eſſential by the Roman Catholics, are not required of them. Divine ſervice in the churches, and even the celebration of funeral rites, are ſuppoſed to have been ſuſpended; the adminiſtration of baptiſm, in caſes of neceſſity, may be transferred to ſurgeons and midwives, who might officiate, without expoſing themſelves more than in the ordinary courſe of their buſineſs: nevertheleſs, other offices remain for the clergy. They may, by ſeaſonable advice, aſſiſt the pious in their devotions; they may exhort the people to be patiently reſigned under the reſtraints neceſſarily impoſed

[9] Particular indulgencies are granted, by the Pope, to perſons of all denominations, who ſhall voluntarily aſſiſt in the ſervice of the infected. Muratori, lib. iii. c. i.

[10] Ibid. lib. iii. c. i. c. vi. p. 296.

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by the magiſtrate; and above all, they may excite them to the tender offices of humanity, and chriſtian charity. But as example, at all times, has more influence on the populace than precept, it will be incumbent on eccleſiaſtics of every denomination to remain in their ſtations, and, by taking ſuch a ſhare in the public labour as the magiſtrate ſhall appoint, encourage their fellow citizens to ſtand firm to their allotted poſts; truſting, after taking every human precaution, but flight, to the protection of Divine Providence [11].

At this melancholy period, when the diſtemper almoſt reaches its height, and when deſpondence prevails univerſally, it becomes more than ever neceſſary, that the principal magiſtrates, and the clergy, with the badges of their office, ſhould ſhow themſelves occaſionally in the ſeveral diſtricts. This might be done on horſeback, or by having the way cleared, without much danger, and their appearance would revive the expiring courage of the citizens [12]. At the ſame time, ſome conſolation may be derived from the proſpect of approaching winter, which will infallibly produce a rapid change in the courſe of the diſtemper.

CHAP. V.

Regulations in the fourth period, or decline, of the plague—Infected poor ſhould be removed from their houſes—Account ſhould be taken of infected houſes, preparatory to their expurgation—The poor, in the temporary Lazarettos, ſhould remain—Purification of merchandiſe in warehouſes—Meaſures for the reſtoration of commerce with other ſtates—Termination of ſundry plagues, at London—The real ſtate of the diſtemper ought not to be concealed, &c.

TOWARDS the end of September, but ſtill more ſenſibly in the ſecond week of October, the plague, at London, has

[11] Journal of the Plague Year, p. 33.
[12] Ibid. p. 211, 213.

uſually

uſually been obſerved to decline; and its decreaſe, in November, has been always rapid. This is the ordinary tenour of its courſe, from which it rarely deviates more than a few days; and, though a fluctuation in the number of funerals is ſometimes remarked in September, the diſtemper always arrives at its height in that month, decreaſing as conſtantly in the ſubſequent months, with increaſed rapidity, in proportion as the winter advances[1].

The diſtemper becoming leſs contagious, and the diminution of the weekly funerals, indicate a material alteration in the ſtate of the air; and could it be known with certainty, that the peſtilential conſtitution would terminate in the winter, the future cares of the council of health would be greatly leſſened. It has been already ſhown that, notwithſtanding the quantity of infected ſtuff accumulated at the end of a plague, in towns where purification of houſes and furniture is very little practiſed, few or no conſequences are obſerved in the following year, unleſs the ſame conſtitution of the air which concurred before, ſhould again concur, to the propagation of infection.

But as it cannot, by any human means, be foreſeen whether the peſtilential conſtitution of the air will end completely in the winter, or revive with the return of ſummer, it behoves the police to take precautions againſt the worſt that can happen; and to endeavour, by proper reſtraints, to prevent a raſh concourſe, and communication of the populace, which, in the ſequel, might become dreadfully fatal. Such precaution becomes the more neceſſary, as the people upon a manifeſt meliority in the publick health, are prone to hurry from one extreme to the other, to conſider all further reſtraint as ſuperfluous, and to ruſh as precipitately into danger, as they before fled from it.

[1] See before, book iii. p. 270.

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Thoſe who have retreated into the country, or who have remained ſhut up in their houſes in town, ſhould be adviſed to have patience for a little while longer. A week, or ten days, makes a material difference in the riſk of expoſing themſelves, and their domeſtics, in the ſtreets; and the thinner the town remains, the more the magiſtrate will be at liberty to purſue meaſures for rendering an unreſerved intercourſe ſoon ſafe to all.

Thoſe who remain in quarantine, in houſes which have been infected, ſhould be adviſed not to relax in their precautions, before the chambers of the ſick have been duly purified. If there happen to be convaleſcents in the ſame houſe, it may be left optional, whether the ſound, in quarantine, will remove to a clean houſe, to finiſh their quarantine; or whether the convaleſcents will remove to a place deſtined for their reception. But as ſoon as returning quiet will admit of better regulations, a ſeparation ſhould be made, and both ſhould not, on any pretence, be permitted to dwell in the ſame houſe.

Where there are no convaleſcents in the houſe, or after their removal, the apartments of thoſe lately ſick ſhould be purified with all expedition; and till ſuch time as that be accompliſhed, the ſound in quarantine ſhould not be admitted to prattique.

The law, and the orders relating to convaleſcents walking the ſtreets, ſhould be enforced. By convaleſcents are here meant thoſe not twenty days recovered, or thoſe with ſores not yet healed.

In reſpect to thoſe, at this time, taken ſick, they ought to be ſpeedily removed, and the apartment immediately ſmoked, and locked up by the magiſtrate. The reſt of the family, in large houſes, if they cannot conveniently retire elſewhere, may be permitted to perform their quarantine at home.

From

CHAP. V.

From the houſes of the lower claſs, the ſick, the convaleſcents, and the ſound, ought invariably, where it can be done, to be removed to the reſpective hoſpitals out of town. This, from the decreaſe of the ſickneſs, will become more and more practicable every day. But till that can effectually be done, the infected ſtreets inhabited by the poor ſhould be inveſted, ſo as to prevent dangerous intercourſe by their wandering about; and in the mean time, till there be room in the hoſpitals, they ſhould continue to be ſupplied with proviſions in their own houſes, at the public expence.

All regulations relative to keeping the ſtreets ſweet, &c. which, during the late confuſion, may poſſibly have in ſome meaſure been neglected, ſhould again be revived; and the dead ſhould ſtill be buried out of town, or in the wide church-yards only.

Proper officers ſhould now be employed in taking a particular account, of the families voluntarily ſhut up in their houſes; of thoſe remaining in quarantine; of empty houſes not yet purified; and of houſes actually or lately infected. The ſtate of the ſeveral diſtricts being thus procured, it will be time to ſet about the purification of ſuch houſes as require it. As to the houſes which have been all along ſhut up, and wherein no accidents have happened, it will be unneceſſary to oblige them to undergo that ceremony: or ſhould they themſelves chuſe it, the materials may be delivered to them to fumigate themſelves, without admitting the common ſmokers. It will be adviſable for them to remain at home, till the general fumigation in the diſtrict be nearly finiſhed [z].

The purification of infected houſes ſhould be performed under the inſpection of confidential officers, who ſhould take care to ſee it effectually done, and, at the ſame time, prevent embezzlement

[z] Traité de la Peſte, p. ii. p. 160. 208.
For an Account of the Method of Purification of Houſes, &c. employed after the laſt Plague of Meſſina, ſee La Memoria Iſtorica du Orazio Turriano, p. 143.

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of the goods expoſed in the chambers. This will be more eſpecially neceſſary in houſes where none of the family are left; but where it happens that ſome of them are in quarantine in the houſe, or elſewhere, one or more may be permitted to take care of the effects, when trunks, preſſes, &c. are opened. Stuff of a ſuſpicious kind, which may require more complete purgation than mere ſmoking, or perhaps to be deſtroyed, ſhould be put up in bales, with tickets indicating whoſe property it is, and tranſported, in guarded carts, to ſome ſecure repoſitory, where it may remain till future leiſure.

Store rooms, where ſuperfluous furniture was lodged at the beginning, if the doors were ſealed up, and the keys lodged with the magiſtrate, may be exempted from fumigation, even although perſons ſhould have afterwards died in the houſe; but the reſt of the chambers, and other looſe furniture, ſhould be treated as uſual.

The number of houſes to be purified being aſcertained, it will be eaſy to make a rough eſtimate of the time required for doing it; and, for the ſake of expedition, they ſhould be taken without diſtinction, in the order they preſent; ſome regard, however, ſhould be had to ſuch infected houſes, the ſound inhabitants of which had removed, and only wait for permiſſion to return home, their quarantine having expired. A regular diſpoſition, made previouſly, will greatly facilitate this operation, and if ſeveral pariſhes unite together in the ſame plan, as they happen to border on each other, it would contribute to deſpatch.

The next object will be the admiſſion to prattique of thoſe who have completed their quarantine, whether in their own houſes, or in other places: all of whom, together with their beds, apparel, &c. ſhould be fumigated. If a pariſh regiſter of the time of their entrance into quarantine has been neglected, ſome care will be required in making enquiry.

What

CHAP. V.

What has been ſaid, of the purification of houſes, refers chiefly to thoſe of better rank; and as the uſual courſe of the plague is from one diſtrict to another, declining in this, while it increaſes in that, ſeveral pariſhes, at this period, will ſoon be in a condition to ſpare workmen to aſſiſt in others later infected.

But what greatly concerns the general welfare, is the purification of the dwellings of the lower, but induſtrious claſſes of inhabitants, many of whom, from long want of employment, and other cauſes, muſt be reduced to a deplorable ſtate of indigence. The rendering their houſes ſafe and comfortable will contribute to the future ſecurity of the public health, and, at the ſame time, is a charity greatly conducive to the advantage of human ſociety. Many of thoſe who are in the convaleſcent Lazaretto, will ſoon be in a condition to return to their families, and the ſooner they can with ſafety be reſtored to them, the better for the public.

The reſt of the poor, eſpecially ſuch as are commonly maintained by the pariſh, and with which the Lazarettos may be ſuppoſed to ſwarm, ſhould, if means can be deviſed, be kept entirely out of town, till the return of the warm ſeaſon removes all apprehenſion reſpecting the enſuing year. They perhaps might be lodged in barracks, or otherwiſe, in a way fully as comfortable as in their wretched dwellings in town, and, in caſe of a return of the plague, their being already in the country would ſave the police an infinite deal of trouble afterwards, as well as greatly facilitate attempts to extinguiſh the diſtemper, at its reſuſcitation in particular pariſhes. At any rate, it would be ſome check on the progreſs of contagion, the propagation of which is known to be much promoted by the intercourſe of the lower claſs of the poor.

If the above meaſures for the purification of dwelling houſes have been aſſiduouſly carried into execution in November, a

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freer communication may safely take place in the following month. Unneceſſary concourſe, and aſſemblies, ſhould ſtill, however, be diſcouraged; and even the churches ſhould remain ſhut, till the peſtilential burials be reduced very low: their total ceſſation is, perhaps, not yet to be expected. Such of the churches as from neceſſity may have been employed as temporary receptacles for perſons removed from infected houſes, ſhould be carefully cleanſed and ſmoked; and, it may be adviſable, that all the churches indiſcriminately ſhould be well aired by fires.

In regard to the purification of merchandiſe in warehouſes, in the manner practiſed at Marſeilles, I conceive it to be impracticable in ſuch a city as London, and if an early embargo has been laid on trade, numbers of warehouſes muſt have remained ſhut up all the time of the ſickneſs, which would render it unneceſſary in reſpect to them. Goods of a more ſuſpicious kind, which have not been thus ſhut up, might be ſent to the Lazaretto to be aired, or perhaps be fumigated in the warehouſe. Some precaution of this nature will be prudent, in relation to the neighbouring ſtates, which may more readily be induced to renew their intercourſe and commerce.

It may be objected here, that ſuch multiplied precautions and reſtraints, beſides the expence, labour, and endleſs inconveniencies, reſulting to the whole body of the people, and to every kind of buſineſs, appear to be unneceſſary or ſuperfluous; becauſe the winter's cold will of itſelf put a ſtop to the diſtemper. And moreover, that it will be impoſſible to carry purification, ſuppoſing its efficacy admitted, to ſuch a degree of perfection, but that a quantity of infected ſtuff muſt unavoidably remain ſufficient to revive the diſeaſe, ſhould the conſtitution of the enſuing year prove favourable to its ſpreading. In anſwer to this, I ſhall refer to what has been already ſaid in another place[3], re-

[3] See before, book iii. chap. v. 264. 280.

peating

peating only, what I have before ventured to offer as an opinion, that if the peſtilential conſtitution of the air were to terminate completely at the latter end of the year, the precautions above recommended would, in a great meaſure, be locally ſuperfluous; the plague would ceaſe independently of them. But if that conſtitution lingers in any degree, the propoſed purification, though imperfect or defective, may conduce, at leaſt, to moderate the progreſs of the diſtemper, the return of which it had failed in wholly preventing; it may ſave many though not all[4].

I have ſaid locally ſuperfluous, becauſe though it may happen, on one ſuppoſition, to be of little ſervice to the town itſelf, it may prove of material conſequence to other places not hitherto viſited; for there is no doubt, that infectious goods which, in a town juſt recovering from the plague ſeem to produce little or no effect on thoſe who handle them, are capable, if tranſported to other places yet ſound, of there communicating the infection. It is equally certain, that the ſtate of the air, as it reſpects contagion, may in two places not far diſtant differ ſo eſſentially, that while the diſtemper is rapidly decreaſing in the one, it may be increaſing in the other; of which the territory of Marſeilles, as well as ſeveral towns of Provence, in 1720, afford inſtances[5].

The purification of dwelling-houſes, furniture, &c. and of ſuch ſuſpected articles of merchandiſe as are to be retailed, and conſumed in the place recovering, is a prudential meaſure always to be adopted, as far as circumſtances will permit, and falls directly under the department of the local police. But the council of health, extending its care, on a wider ſcale, over the whole kingdom, and comprehending merchandiſe intended for other countries, as well as that for home conſumption, will no doubt think proper to lay the capital, or manufacturing towns, under

[4] See book iii. chap. vi.

[5] Traité de la Peſte, p. i. p. 464. Relat. Hiſt. p. 361. See alſo before, book iv. chap. v. p. 263.

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ſuch temporary reſtraints, as, in co-operation with the regulations of other towns or diſtricts, for the reception of ſuch merchandiſe may more effectually prevent the contagion from ſpreading in the country. In regard to foreign commerce, the council will alſo ſo regulate exportation, that other nations may the ſooner be induced to reſume their trade with Britain, which moſt probably muſt have been interdicted[6].

When the communication begins to be more free, in the month of December, it will be time for thoſe of every denomination who have been employed in attendance on the infected, and can now be ſpared from the ſervice, to retire into quarantine; for which it would ſeem incumbent on the liberality of the public, to provide the accommodations. The magiſtrates, and others who have hitherto expoſed themſelves, ſhould likewiſe perform a ſhort quarantine.

Thoſe who ſtill have intercourſe with the ſick, ſhould be debarred promiſcuous communication, and be obliged to carry the uſual badge of diſtinction. Convaleſcents of whatever rank ſhould ſequeſter themſelves till ſuch time as their ulcers are healed; and after their quarantine, they ſhould be waſhed and fumigated.

While the city indulges the pleaſing proſpect of returning calm and proſperity, frequent alarms are to be expected; for the diſtemper does not ceaſe at once, and common report often exaggerates.[7] The continuance of the plague, in a ſlight degree, is no more than what happens in the ordinary courſe of things,

[6] In 1665, whilſt the plague raged at London, neither France, Spain, Naples, Portugal, Holland, or Italy, would admit our manufactures or ſhips into their ports, though the ſhips in the river remained free till Auguſt. The prohibition was continued for many months after the diſeaſe declined. The Dutch and Flemings are ſaid to have made a conſiderable advantage of the times, by purchaſing our manufactures from towns not infected, and tranſporting them to Spain and Italy; for the export trade of the out ports ſubſiſted ſome time after that of London had been prohibited.

[7] Journal of the Plague Year, p. 278.

and

and by no means implies, that the enſuing year will infallibly prove highly peſtilential. CHAP. VI.

In the year 1603, there died of the plague, at London, above thirty thouſand, according to the bills of mortality; in the year following, under nine hundred. In 1625, there died above thirty-five thouſand; and, next year, only one hundred and thirty-four. In 1636, there died above ten thouſand; next year, three thouſand; and in 1638, under four hundred[8]. In 1665, there died, according to ſome, ſeventy thouſand; according to others, ninety-thouſand; next year, about one thouſand eight hundred; and in 1667, no more than thirty-five. Of all thoſe years, the plague of 1625 terminated the moſt rapidly. Some of the others continued ſeveral years ſucceſſively, with little or no interruption; but in none of them, except in 1637, did the mortality of the ſecond year bear any proportion to that of the firſt. There is, however, an exception to this general remark, in the century immediately preceding; for in 1592, eleven thouſand are ſaid to have died of the plague; and in 1593, ten thouſand[9].

The real ſtate of the plague, in this as well as in the firſt ſtage, if due pains are beſtowed in procuring intelligence, will be in the poſſeſſion of the council of health; and an authentic account ſhould be publiſhed weekly. The policy, in ſome countries, of deceiving the people, with a view of preventing alarm; and of ſending abroad falſe accounts, in order to prevent the interruption of commerce with other ſtates, ſhould never be imitated. It is a wretched expedient, which betrays the people into a perfidious ſecurity, and throws them off their guard; and if ſo much be aſcribed to the effects of fear and alarm in prediſpoſing perſons to infection, ſurely leſs is to be apprehended when they are gradually prepared, from the beginning, than when the calamity

[8] Graunt thinks it probable, that about one-fourth more died of the plague than are returned for ſuch. Nat. & Polit. Obſ. 2d edit. 1662.

[9] Ibid. p. 31.

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falls upon them unexpectedly at once, at a time too when the plague has become more contagious. In regard to other ſtates, without effectually impoſing on them, it deſtroys public confidence, and renders them juſtly ſuſpicious of all future favourable accounts, though, in reality, they may happen to be true. The interruption of commerce, inſtead of being removed, is protracted; and the moſt ſolemn declarations of the magiſtrate come to be received with diſtruſt. The people are undoubtedly entitled to authentic information. If matters carry a favourable appearance, there can be no reaſon for miſrepreſentation; if otherwiſe, it is fit they ſhould know the undiſguiſed truth. The provident will make their arrangements in time, and the majority of the inhabitants, by a compliance with neceſſary regulations, will more cordially co-operate with the magiſtrate, who they truſt does not deceive them, and who they are perſuaded will not wantonly impoſe any ſuperfluous reſtraints, for averting the impending evil.

But however much the plague may be reduced at the period we are now treating of, and however inconſiderable may be the mortality, the police ſhould ſteadily perſevere in the uſual precautions of immediately ſeparating the ſick from the ſound, and of purifying the infected houſes; the inconvenience will be felt by a few individuals, the advantages, in caſe of the diſtemper's increaſe, will be reaped by multitudes.

Should it be aſked, whether, on the ſuppoſition of the apprehended calamity being actually impendent, the precautions ſo confidently propoſed, can rationally be expected to avert it? It may be anſwered, that the experience of Marſeilles, and other places, affords good reaſon for thinking they may, if not completely, at leaſt in a conſiderable degree [10].

How far the continuance of the plague at London, eight years at one time, and twelve at another, may be aſcribed to the neglect

[10] See book iii, chap. v.

of

of ſimilar precautions, has been fully conſidered in another place[11]. Dr. Mead believed, that the old cuſtom of ſhutting up the diſeaſed and the healthy together, contributed very much to the long continuance of the plague, every time it was at London, and that it had as ill effects in other countries[12]. But I am inclined to doubt this; for though that cuſtom, on many accounts ſo juſtly condemned, might increaſe the mortality, while practiſed, it does not appear to have ever prevailed in the decline of the plague; and conſequently the continuance from one year to another, now alluded to, cannot be imputed to that cauſe. Neither does it appear, when the practice was diſcontinued, as in 1636, and 1625, that the plague declined ſooner than at other times: on the contrary, the plague of 1636 is ſaid to have continued twelve years[13].

The advantages expected from the exact purification of houſes, and other precautions, proceed on a ſuppoſition that ſtrict care be taken, at the ſame time, to prevent the reception of freſh infection from other places; without which, the beſt meaſures to deſtroy what already lurks in fomites within the town, muſt fail in their purpoſe.

At Marſeilles, in 1722, the return of the plague was imputed to contagion imported from Avignon[14]; and perhaps the long continuance of it formerly at London, might in ſome inſtances be owing to infection recently imported from foreign parts[15]. But however that may be, it is obvious that a place where the plague has raged, and is now declined, ſhould be on its guard, in reſpect to other places where it is beginning, or raging; and more eſpecially if in the vicinity of the place, or on the ſame iſland.

[11] See book iii. chap. vi. p. 287.

[12] Mead, p. 93.

[13] See before, p. 274.

[14] Traité de la Peſte, p. ii. p. 235. See alſo before, book iii. p. 284.

[15] See before, book iii. p. 287.

The

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The recovering city ſhould therefore prohibit intercourſe with ſuſpected places, and receive nothing from them without the precautions already deſcribed; it ſhould exerciſe the ſame circumſpection with regard to them, that they did, or ought to have done, in their intercourſe with it under ſimilar circumſtances.

If matters go on favourably through the winter, and no remarkable increaſe of freſh accidents be obſerved in the months of April and May, there will be ground to hope the beſt; but no certain judgment can be formed earlier than June, before which time, it would appear, from the bills of mortality, that the plague at London, ſeldom made conſiderable progreſs. In the bills now before me, I find no peſtilential funerals in the months of January and February; and in 1636, and 1665, none till April. In May, the increaſe of the burials became more ſenſible, and ſtill more ſo in June.

Should no conſiderable increaſe of freſh accidents be remarked in June, the plague will, in all probability, either ceaſe ſoon, or linger in a ſlight degree till the winter, purſuing its uſual courſe, as to increaſe and decline, through the ſubſequent months. This event will ſhow the ſtate of the air to be ſlightly diſpoſed to favour contagion; but if no accidents, or very few are obſerved in June, there will be reaſon to conclude that the peſtilential conſtitution of the air is completely changed.

In the firſt caſe, the number of ſick being inconſiderable, it will be attended with little inconvenience or difficulty to continue the former regulations, reſpecting infected families, and they ought indeed to be ſtrongly enforced, in order to exterminate the lingering infection; for although the ſtate of the air, at that time, may be but ſlightly diſpoſed to favour contagion, it may poſſibly become more ſo in the enſuing year, as happened at Aleppo, in 1761 and 1762, and proper precautions, if

if at the ſame time care be taken in regard to intercourſe with other infected places, may probably ſave the city from a more formidable viſitation, even on the ſuppoſition of a change favourable to contagion taking place in the air. After the great mortality in London, in 1603, when above thirty thouſand are ſaid to have died, the burials, in the year following, were reduced to nine hundred; and, in 1605, to four hundred and forty: but they increaſed conſiderably in the three ſubſequent years; and, in 1609, amounted to four thouſand two hundred. In 1636, ten thouſand and four hundred died; next year, three thouſand and eighty-three; and, in the two ſucceeding years, the burials were reduced to leſs than four hundred annually; but after this they again increaſed, and, in 1647, roſe to three thouſand ſix hundred. The long continuance of the plague, in ſome of theſe inſtances, might perhaps, in ſome meaſure be owing to neglect on the part of the police, and to the raſh intercourſe of the people, when they had got rid of their former apprehenſions[16].

In the ſecond caſe, that is when no accidents, or very few are obſerved in the months of June or July, the attention of the police ſhould be chiefly directed to the prevention of intercourſe, or commerce, with other infected places; eſpecially if the plague continues in the iſland, or happens to rage in any of the neighbouring ſtates, on the Continent.

The political regulations treated of in this and the three chapters immediately preceding, have been chiefly collected from writers who produce experience in ſupport of the precepts they recommend. A few alterations, which have been occaſionally introduced, were ſuggeſted by an attentive compariſon of thoſe ſeveral authorities, and by circumſtances in the general courſe of the plague, which I have had occaſion to obſerve myſelf, and which made an impreſſion upon me at the time. I am fully ſenſible, however, that the meaſures I have ſelected will admit of

[16] See before, book iii. chap. v. and vi. and Journal of the Plague Year, p. 264.

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improvement, and of being new modelled, by perſons more converſant with the general adminiſtration of police, and conſequently better qualified for adapting and applying it to particular circumſtances and ſituations than I pretend to be. The ſpirit of them, I conceive to be founded on ſound authority; the detail will, I doubt, be found in many points defective, in others liable to objection: but they may be variouſly corrected and modified, and the ſpirit of them ſtill preſerved.

CHAP. VI.

Medical preſervative regulations againſt the plague—Mode of fumigation deſcribed—Materials employed for that purpoſe—Experience in favour of the practice, but its effects perhaps exaggerated—Kindling fires in the ſtreets, and firing of cannon, appear to be of no ſervice—An error reſpecting the practice of the Arabians—External and internal preſervatives—The Preſcriptions of the College require reformation—Extemporaneous preſcriptions ſhould be ſimple, and of eaſy preparation—Iſſues, and tobacco, as preſervatives—Precautions for ſuch as approach the ſick, &c.

FREQUENT mention having been made, in the preceding chapters, of the practice of fumigation, for purifying infected houſes, and goods, I ſhall here give a deſcription, from Muratori, of the manner of performing that operation in Italy; and ſubjoin a liſt of ſome of the principal ingredients uſually employed[1].

[1] Lib. i. c. ix. p. 74. This author has alſo in his ſecond book, made many large collections, from various writers, on the ſubject of the preſent chapter.

Letters relating to the Plague, by Theophilus Lobb, M. D. London, 1745, may alſo be conſulted.

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The infected apparel, linen, ſheets, coverlets, &c. are to be ſpread out upon lines, ſtretched acroſs the chamber, the ſeams, of ſuch articles as require it, being unript. The doors, windows, and chimneys are then to be ſhut up, ſo as to prevent the ſmoke from making its eſcape too ſoon. When this is done, four or five pounds of dry hay are placed at bottom, and upon that are ſtrewed four handfuls of the ingredients in powder, which being covered with a little more hay, the whole is ſprinkled with vinegar, in order that the materials may not be conſumed too faſt. The fire is applied in ſeveral places at the bottom, the hay being raiſed and ſupported by a poker; and after the whole is well kindled, the perſon employed, immediately retiring, takes care to ſhut the door. The houſe, or chamber, remain cloſe ſhut up three days; after which the houſe and goods are carefully aired.

The combuſtible materials, I ſuppoſe, are laid upon a braſier, which may anſwer very well in Italy, where the floors are generally brick or plaſter; but for boarded floors, the fire muſt be guarded by a better apparatus, to prevent accidents.

The method of ſmoking ſhips, deſcribed by Dr. Lind, ſeems preferable to this. After carefully ſtopping up all the openings and crevices, a number of iron pots, properly ſecured, are placed in the hold, &c. Each of theſe contain a layer of charcoal at the bottom, then a layer of brimſtone, and ſo alternately three or four layers of each. On the top, ſome oakum, dipped in tar, is laid to ſerve as a match [2].

The object here is to confine the heat, and ſmoke, a conſiderable time, both being conſidered as the moſt powerful agents for deſtroying infection. "From the known and experienced "efficacy of fumigation (in reſpect to ſhips) it appears that fire

[2] Lind's Diſſertation on Fevers, 2d edit. p. 228.

BOOK VI. " and ſmoke are the moſt powerful agents for annihilating infec-
" tion, and it may be preſumed, even the plague itſelf[3]."

A great variety of ſubſtances have been recommended for the purpoſe of fumigation, and a number of compoſitions have been employed, conſiſting of a farrago of ingredients which, though they enhance the coſt, add nothing perhaps to the efficacy of the compoſition. The effects expected from fumigation depend leſs on the ſpecific quality of the combuſtible materials, than on the mode of its application, which ſhould be ſo conducted, that the heat and ſmoke may penetrate into every corner and receſs.

The following are the principal ingredients that have been employed in fumigation: ſulphur, yellow and white arſenick, nitre, charcoal, gun-powder, tar, pitch, roſin, frankincenſe, vinegar, tobacco, juniper berries, pine tops and ſhavings.

The fetid and aromatic gums, with the coſtly ſpices and balſams, may very ſafely be ſpared; and even the more common aromatic herbs, as ſage, roſemary, mint, lavender, &c. would ſeem to be not neceſſary, except in the chambers of the ſick, in compliance with common prejudice; but none of them are preferable to the ſteam of vinegar, plain or camphorated, or to gun-powder a little moiſtened.

The Italian compoſition for fumigation might therefore be reformed, leaving ſeveral of the more coſtly ingredients out, without impairing its virtue. The forms mentioned by Muratori might be thus reduced[4].

Sulphur, 5 pounds.
Orpiment, 2 pounds.
Common Frankincenſe, and
Juniper Berries, of each 3 pounds.

[3] Lind's Diſſertation on Fevers, 2d. edit. p. 229. See before on this ſubject, p. 425.
[4] Muratori, lib. i. cap. ix. p. 72.

To theſe, after being reduced to a powder, are added:
Shavings of the Pine Tree, 5 pounds.
Bran, 20 pounds.

In like manner a ſtill ſtronger fumigation is prepared, by increaſing the proportion of ſulphur, and adding one pound of White Arſenick.

The firſt of theſe two fumigations, is uſed for the purification of infected houſes; the ſecond, for Lazarettos, ſepulchers, and ſtuff more ſtrongly tainted than common furniture. A third fumigation, intended for perſons and their apparel, who are obliged to approach the ſick, is compoſed of ſulphur, aromatic gums, and ſpiceries, without arſenick[5]. But plain ſulphur, frankincenſe, pine ſhavings, and bran would anſwer equally well.

The early orders of 1603, againſt the infection of the plague, expreſsly enjoin the alternative of burning infected goods, or airing and fumigating them, as directed by the College. In 1636, and probably before, this article was confirmed by the mayor and aldermen, and ordered to be executed by the examiner. The removal of goods from infected houſes was at the ſame time prohibited, till after the expiration of two months. Both orders were repealed in 1665, by the mayor; but the College, who in 1636, had adviſed that no infected ſtuff ſhould be removed ſooner than ſix months after the ceſſation of the diſtemper in the houſe, in their advice of 1665, make no alteration in that term.

Notwithſtanding the publication of the above orders, it may be doubted whether they ever were ſtrictly, or in general, carried into execution, with a view of purifying infected houſes, after the families had retired from them. This may be inferred from Hodges's Account of the Plague's decline, in 1665, at

[5] Muratori, lib. i. cap. ix. p. 73.

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leaſt in reſpect to that year; and from the mild nature of the fumigations preſcribed, as well as the mode of employing them, they would appear rather to have been intended for the correction of the air in houſes inhabited, than for the thorough expurgation of goods highly ſuſpected: indeed had proper purification been practiſed, the terms of ſix, or even of two months, affixed for the removal of goods from infected houſes, would have been ſuperfluouſly long.†

Muratori, after remarking that fumigation was uſed anciently, in the peſtilence, ſays, the practice was brought into more general uſe, by P. Maurizio da Tolono, a Capuchin, who had great ſucceſs with it, in the plague of Genoa, in 1657. He obſerves further, that Franceſco Ranchino, and others, were of opinion, that fetid and poiſonous fumes were the moſt effectual. Declining however a deciſion of this point, he refers to the experience of the Capuchin, who delivers himſelf to the following purpoſe. "That his milder fumigation, intended for perſons obliged "to go among the infected, or otherwiſe to expoſe themſelves "to danger, was an admirable preſervative, and was uſed with re"markable ſucceſs in Genoa, in 1657; the fumigation being ap"plied to the perſon, and his clothes, before coming out from "his houſe."——He adds further, "that the application of his "other fumigations rendered the former practice, of burning in"fected or ſuſpected goods, unneceſſary; as alſo the ſhutting "up infected houſes, which being abandoned by their inhabi"tants, were left expoſed to the depredation of robbers. He "acknowledges, that infected goods may be purified by proper "expoſure to the air, but then a ſpace of forty days is requiſite "for their purgation, during which time they are ſubject to "many inconveniences, beſides being ſpoilt by the rain, or ſtolen "by thieves: whereas, by his method, twenty-four hours are "ſufficient for the purifying not only houſes, with their fur"niture, but even Lazarettos, and the infected beds of the ſick." Muratori ſubjoins two inſtances of the good effects of fumiga-

† Journal of the Plague Year, p. 261, 267.

tion,

tion, at Venice, in 1576; and at Malta, in 1675; and gives ſeveral inſtances of the bad conſequences of the neglect of ſuch precautions, at Rome, in 1656; at Marſeilles, in 1649; and at Modena, in 1630, alſo at Palermo, Florence, &c.[6]

Notwithſtanding theſe authorities, in favour of fumigation, Dr. Mead appears to think the practice injudicious, if not prejudicial, the fumes of vinegar, and perhaps brimſtone excepted, founding this opinion chiefly on the practice of the Arabians, who, he ſays, recommend the keeping the houſes cool and airy, and ſtrewing them with cooling herbs, as roſes, violets, water lillies, &c. ſprinkling them at the ſame time with vinegar. But I apprehend there is a little inaccuracy in this repreſentation of the Arabian practice; for though the Arab writers certainly recommend the keeping the houſes cool, &c. they are far from condemning fumigation with aromatic herbs, and gums. The fact is, the Arabians made a very material diſtinction, which the Doctor ſeems not to have attended to, namely, between the regimen for perſons lying ſick in peſtilential diſorders, and perſons, yet in good health, uſing precautions for their preſervation. The cooling regimen was recommended to the former; but to the latter were recommended, amongſt other things, ambergriſe, aloes wood, muſk, frankincenſe, ſtorax, ſandarac, and aſſafœtida; alſo the chewing of cloves, maſtic, labdanum, &c. beſides various aromatic compoſitions, to be taken internally[7]. Doctor Mead is therefore miſtaken when he aſſerts the Arabian practice to be directly contrary to what modern authors moſtly adviſe, which is, "to make fumes with hot things, as benzoin, frankincenſe, aſſafœtida, ſtorax, &c. from which I ſee no reaſon to expect any virtue to deſtroy the matter of infection, or to keep particular places from a diſpoſition to receive it, which are the only things to be aimed at[8]."

[6] Muratori, lib. i. c. ix.

[7] Avicenna, lib. iv. fen. 1. Tract. 4. chap. 4.

[8] Mead, p. 121.

It may be difficult to conceive in what manner theſe fumes operate, in deſtroying the matter of infection; and, till the matter of infection be better underſtood, it will not be more eaſy to account for the operation of the fumes of vinegar, or ſulphur, which Doctor Mead admits to be uſeful; but his doubts derive no ſupport from the practice of the Arabians, (who, he thinks, were beſt acquainted with the nature of the peſtilence) in as much as they uſed the very ſubſtances he condemns: nor has he produced any evidence for hot fumes being generally uſeleſs. "As hot "fumes, (ſays he) appear to be generally uſeleſs, ſo the ſteams "of poiſonous minerals ought to be ſuſpected as dangerous; and "therefore, I cannot but diſſuade the uſe of all fumigations "with mercury or arſenic[9]."

Arſenical fumigations are uſed only for the purification of houſes, and furniture ſtrongly infected, and experience has not ſhown them to be prejudicial: whether they add any thing to the efficacy of the other ingredients, is another queſtion. Lind mentions the addition of arſenic to charcoal fires, and brimſtone, for the purification of infected ſhips, without expreſſing any apprehenſion of dangerous conſequences, if the people, employed in the proceſs, retreat immediately upon ſetting fire to the materials[10]. He obſerves, that the fumes of charcoal and brimſtone do not deſtroy ſome ſpecies of vermin, particularly lice, but does not ſay, whether or not they are deſtroyed by arſenical fumigation. He has known wood fires, ſprinkled with brimſtone, ſtop the contagion of the ſmall-pox[11], "in a word, (ſays he) a ju-"dicious and proper application of fire and ſmoke is the true "means appropriated for the deſtruction, and utter extinction, "of the moſt malignant ſources of diſeaſe."

[9] Mead, p. 122.
[10] Lind, p. 229.
[11] Ibid. p. 232.

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The materials found ſo ſucceſsful by Lind, were tobacco, charcoal, brimſtone, and wood. The more coſtly gums, perfumes, aromatic herbs, woods, and ſeeds, may perhaps add to the elegance, though not to the efficacy of the various compoſitions employed for purgation of infected ſubſtances; but there appears no reaſon, from experience, for thinking they impair the virtues of vegetable ſmoke, or that, from their heating qualities, they can prove prejudicial to inanimate ſubſtances.

I have collected the above authorities, with a view to reſcue the practice of fumigation, as a means of purifying infected goods, from the derogation implied in Doctor Mead's manner of expreſſing himſelf on the ſubject; and I am alſo obliged to differ from him, in what follows, "when the ſick families are removed, all "the goods of the houſes, in which they were, ſhould be burnt, "or rather buried deep under ground - - - and moreover, the "houſes themſelves may likewiſe be deſtroyed by fire, if that "can conveniently be done, that is, if they are remote enough "from others; otherwiſe it may ſuffice to have them thoroughly "cleanſed, and then plaſtered up[12]."

The burning of houſes in a town muſt, for the moſt part, be attended with danger; and the burning of furniture, &c. has been found by experience to occaſion dangerous concealment, and theft, beſides many other inconveniencies. Fumigation, in many inſtances, has proved ſucceſsful, and, if adopted previouſly to the plaſtering the houſes, the workmen employed would run leſs riſk of infection.

At the ſame time it muſt be confeſſed the ſucceſs aſcribed to P. Maurizio ſeems ſomewhat exaggerated; for it would appear that he practiſed in the decline of the plague, when the diſtemper in itſelf is leſs contagious. An Auguſtine Father, who was very active in one of the Lazarettos of Genoa, in 1657, and who

[12] Mead, p. 108.

gives

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gives a minute detail of that, and all the other Lazarettos, remarks, that ſeveral of thoſe employed in purifying the houſes were themſelves infected; and though he gives them all due credit for expoſing themſelves ſo boldly, for the public good, he doubts the utility of their operations[13].

The principal objections to fumigation made by this Father, were, firſt, the impoſſibility of fumigating all the infected ſubſtances contained in a city which has juſt before been ravaged by the plague: ſecondly, that the operation is unneceſſary, becauſe ſuch ſubſtances loſe their infectious property when the peſtilential ſeaſon terminates; and laſtly, that in the beginning of a plague, danger may be apprehended from thoſe employed as fumigators ſpreading the infection in parts of the town not before infected. In reſpect to the firſt and ſecond objection, I ſhall refer to what has already been ſaid on the ſubject, on former occaſions, in this work[14]; and the conſequences apprehended in the third, might be prevented by not permitting thoſe employed in fumigating infected houſes to enter ſuch houſes as are yet ſound, and which only have recourſe to fumigation as a preſervative.

Doctor Mead thinks the objections made to fires in the ſtreets, in the time of peſtilence, may be applied to the firing of guns, which ſome have too raſhly adviſed[15]. Dr. Lind alſo objects to the "burning large fires in the open air, in the ſtreets, and about the walls of town—as they may perhaps produce a conſumption and a deſtruction of that principle in the air which is equally the food of animal life and of fire[16]"—but theſe objections do certainly not apply to the firing of guns, which is only a kind of fumigation, and which may be indeed of little ſervice in the wide

[13] Lazaretti deilla Città & Riviere di Genoa del. 1657, da Antero Maria da S. Bona Ventura, ſcalzo Agoſtiniano. Gen. 1658. cap. xxxi. lib. iii.

[14] See page 269, 272, 283, 293, and book v. chap. v. p. 422 to 427.

[15] Mead, p. 119.

[16] Lind on Fevers, p. 230.

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ſpace of the open air, but cannot be reckoned prejudicial, like univerſal fires in the ſtreets of an infected town. At any rate it cannot be termed a raſh advice; for it had long been a ſtanding article in the advice of the College of Phyſicians, of London, and was repeated in 1665. But the fumes of gunpowder are recommended by Lind, next to the ſmoke of wood, for purifying tainted air, that is, where applied properly; and they have the additional advantage of being quite inoffenſive to the lungs, ſo as to be uſed in the chambers of the ſick [17].

In my opinion, little benefit can be expected, either from making univerſal fires, or firing great guns; though I think it very doubtful whether the great mortality at London (no leſs than four thouſand in one night) can juſtly be imputed to the fires made in the ſtreets. Hodges himſelf was at a loſs whether to aſcribe it to that cauſe alone, or to the heavy rains which fell at the ſame time †, and were followed by a wet conſtitution of air.

The experiment was injudiciouſly made, when the plague was increaſing very faſt. In the laſt week of Auguſt, there died ſix thouſand one hundred and two; in the firſt week of September, ſix thouſand nine hundred and eighty-eight. It was in the interval, between the firſt and the third week, that the fires were made; therefore if the mortality ſo remarkably increaſed in one night, it muſt have as remarkably decreaſed in ſome of the others; for the burials, in the ſecond week, appear to have been fewer than in the firſt. In the third week of September, the diſtemper got to its height, and after that decreaſed [18].

The experiment of kindling fires in the ſtreets was tried likewiſe at Marſeilles, without ſucceſs; but not in the ſame manner as at London, either as to the period, or the mode, of its appli-

[17] Lind, p. 234

[18] See table, book iii. p. 276.

† Loimologia, p. 20.

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cation. At Marſeilles, the fires were made in the public ſquares, and round the walls of the town; each houſekeeper, at the ſame hour, being adviſed to make a fire before his door, and to fumigate the interior of his houſe, with ſulphur, expoſing, to the ſmoke within, whatever had been in uſe ſince the beginning of July [19]. This operation, by the advice of M. Sicard, was to be repeated three nights ſucceſſively, but it appears to have been made one night only, for the ordinance was publiſhed the ſecond of Auguſt, and on the third the fires were foreborn [20].

The period of making the experiment was alſo different; for in the beginning of Auguſt the plague at Marſeilles had only begun to increaſe; whereas, at London, before the fires were made, it had made great progreſs, and indeed had very nearly reached its height. If the experiment, at Marſeilles, had been deferred till September, the rapid progreſs of the diſtemper, in the firſt fortnight of that month, would probably, as at London, have been imputed to the fires. At Toulon, in 1721, fires were made univerſally in the ſtreets, with equally ill ſucceſs [21].

From the application of fire and ſmoke, in the manner above deſcribed, little benefit can be expected, at any period of the plague. Where the diſtemper has already ſpread far, the ſick may be injured, or at leaſt incommoded, by the heat and ſmoke; and in reſpect to perſons yet ſound, or infected furniture, they would receive more certain benefit from an application made in the interior of the houſes, than in the open air. Early in the ſeaſon, when the diſtemper is confined to two or three ſtreets, the making fires, univerſally in the town, muſt be ſuperfluous. Smoke can certainly be of no ſervice as a cure for the diſeaſe; and as a preſervative for thoſe in health, it would ſeem to be chiefly of uſe in extinguiſhing, or expelling the infection that may happen

[19] Relat. Hiſtor. p. 86.
[20] Journal of the Plague at Marſeilles, p. 10. 12.
[21] Van Swieten Comment. ſect. 1407. vol. v. p. 165.

to

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to adhere to their clothes, or other things around them, in which view, much cannot be expected from fires made in the open air. Whether fires made round a diſtrict ſtrongly infected, or round a heap of putrifying bodies, to preſerve contiguous places from the peſtilential effluvia, may not be of ſervice, will admit of more doubt; eſpecially if it be ſuppoſed that the infectious particles are rendered inert, or are deſtroyed, in their paſſage through a denſe ſmoke[22].

On a ſuppoſition of this kind, fumigation is employed as the means of preſerving thoſe from contagion who expoſe themſelves in the chambers of the ſick; but from the impoſſibility of powerfully applying it, in this caſe, without incommoding the ſick, it is not much to be depended on. The materials uſed for this purpoſe, are benzoin, myrrh, amber, maſtic, ſtorax, juniper berries, pitch, &c. formed into little rolls with common gum mucilage: ſulphur is ſometimes added. From theſe forms, ſuch ingredients ſhould be rejected as are offenſive to the ſick; and, in point of efficacy, perhaps nothing is preferable to gunpowder moiſtened, or the ſteams of vinegar.

Beſides fumigation, various remedies are recommended, as preſervatives, external and internal. Of the firſt kind, ſome are to be carried in the hand, or worn about the body, or otherwiſe applied externally. Little need be ſaid of the ingredients of which the ſmall bags, balls, ointments, or amulets are compoſed, as

[22] Doctor Moreland propoſed wood fires to be made, not in every ſtreet, but "(in the beginning of the infection) in or near ſuch places as may be ſuppoſed "likely to furniſh conſiderable quantities of the hurtful vapours, that by attacking "them as it were in their quarters, we may prevent their excurſions." He did not hope to cure thoſe already infected, but to obſtruct the beginning of the infection. He thought coal fires, and others which fill the air with ſulphurous vapours, hurtful. *Treatiſe of the Plague, by Dr. Moreland of York*, p. 17. *Lond.* 1721. I know not what could be Moreland's objection to coal fires or ſulphurous vapours, which have generally been recommended by others. See Hoffman's Medical Syſtem, t. ii. p. 236. See again on this ſubject, Van Swieten, vol. v. ſect. 1407.

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they have no juſt claims to the title of antidotes, and are for the moſt part either the offspring of empirical craft, or are mere innocent devices, to give confidence to thoſe under the neceſſity of approaching the ſick. In this laſt view, ſuch as can do no harm may be admitted, in compliance with popular notions; but amulets of poiſonous, or doubtful quality, ſhould be admitted with more caution, or rejected[23]. Some of the perfumes ordered by the College are perhaps as proper as any; but their forms ſhould be rendered more ſimple, excluding coſtly ingredients, or ſuch as are procured with difficulty. No difference, perhaps, ſhould be made between compoſitions of this kind intended for the rich or the poor; the latter, by their ſituations in life, ſtand moſt expoſed, and ſhould not have their confidence in the defenſative leſſened, by the reflection that their poverty muſt deprive them of the moſt efficacious. The pomander preſcribed for the richer ſort, by the College, contains lignum aloes[24], which can be of no poſſible uſe, when incloſed in an ivory box, becauſe it emits its ſcent only when much heated, or burning.

Many of the people of Aleppo carry a little ball of labdanum in their hands; or ſmell to vinegar in which rue has been ſteeped.

As to internal preſervatives, the number of ſimples recommended, under the title of antidotes, is much greater, and the compound forms are in general moſt unjuſtifiably complex. Medical books are filled with them, and with eulogies on their approved efficacy. The reader may find a copious collection in Muratori[25], upon which it is needleſs to comment.

The College, at London, in 1665, made ſome alterations, on the head of *Inward Medicines*, leaving out a very few articles of

[23] Muratori, lib. ii. c. p. 129. See alſo a Treatiſe of the Plague, by Thomas Lodge, M.D. Lond. 1603.

[24] Advice of the Phyſicians, xii.

[25] Muratori, lib. ii. c. iii.

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the old forms, and ſubſtituting others in their place, ſome of which do not appear to have any juſt claim to ſuperior efficacy. Among the principal new compoſitions introduced, are ſome medicated ales, diſtilled waters, and two or three electuaries; of all which the ingredients are ſuperfluouſly multiplied. Among the old compoſitions retained, is one calculated for the rich, and which ſtands diſgraced by the following ingredients; oriental bezoar, pearl, hyacinth ſtone, unicorns horn, and lignum aloes: the proportion of the laſt article being about three grains to four hundred and fifty of the other ingredients.

In the Epiſtle, dedicatory, prefixed to the advice of the College in 1665, it is ſaid, "We have been tender in omitting many "forms and preſcripts, which by reaſon of the plainneſs and "homelineſs of them, we looked upon as very obnoxious, to be "cenſured and vilified, eſpecially by perſons pretending to rare "preparations and ſecrets: we conſidered that our predeceſſors "(amongſt whom were then the moſt eminent phyſicians in "England, and ſuch as had experience of plagues in their times, "raging to a far greater height than through God's mercy any "hath done ſince) might ſee juſt cauſe, upon their experience "and ſucceſs to bring them in."

But it is to be hoped, whenever the College come to reviſe their public advice, that the ſame ſcrupulous delicacy will no longer reſtrain their corrections. Indeed the ſame reaſon for delicacy, no longer exiſts; for the reigning prejudices in favour of names, and authorities, which at that time rendered a cautious reſpect, in ſome degree, neceſſary, have, in the long interval which Britain has providentially enjoyed free from the plague, either been conſigned to oblivion, or retain little of their former influence over the minds of men.

The reformation that in the preſent century has taken place in moſt of the European Diſpenſatories, more eſpecially in Britain,

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has diſencumbered the Materia Medica of many uſeleſs articles; and the later improvements in pharmacy, joined with the modern more ſimple mode of preſcription, have prepared the way for high improvement in medical directions for the prevention and cure of the plague, without danger of offending popular opinions.

In a calamity, to which all are liable, all are entitled to the moſt effectual preſervatives, or remedies, that can be procured; and, invidious diſtinctions being laid aſide, the liberality of an opulent public will furniſh thoſe with ſuch remedies, who have themſelves not the means of purchaſing them. Indeed it providentially happens, that compoſitions of pompous form, and high price, very often owe their repute to ingredients of imaginary virtues, liable, from their coſt, or their rarity, to adulteration, and which, for the moſt part, might ſafely be left out altogether, without detriment to the power of the remedy.

All complex domeſtic remedies are exceptionable, in times of the plague. There is not leiſure, as at other times, to collect the various herbs, or other ingredients, and the want of any one of them, may by the vulgar be conſidered as a material defect. In extemporaneous preſcriptions, the eaſe of the apothecary ſhould alſo be conſulted, by having a few official compoſitions eſtabliſhed by authority, which, in diſpenſing, would require little more than merely to meaſure or to weigh. Neither the phyſician's time, nor that of the apothecary, ſhould be waſted in long receipts, or in varying forms for the gratification of caprice. Remedies, of real utility, may be diſpenſed to one hundred patients, in the time that is required to the making up a few finical preſcriptions, for half a dozen.

The preſervative remedies, external as well as internal, publicly recommended, ſhould be few in number, to prevent people from being perplexed in their choice. The ſelection of ingredients ſhould proceed on the principle already laid down by the College,

College, the preference being given to "ſuch as are eaſieſt un- CHAP. VI.
"derſtood, procured and prepared; and moſt of them at little
"charge for the poor."

It ſeems highly expedient, that ſome compoſitions, under the denomination of preſervatives, ſhould be prepared, with the ſanction of the College, and ſold at eaſy rates. Many perſons will never think themſelves ſecure, without ſomething of that kind, and where they cannot find antidotes regularly recommended, will be the more eaſily tempted to have recourſe to every boaſting impoſtor, who offers his noſtrum: of which numbers, at ſuch times, are always ready to take advantage of the public credulity[26].

At the ſame time, it muſt be confeſſed that preſervative internal remedies do not appear to be neceſſary, for perſons in good health, and, except where there is a ſtrong prepoſſeſſion in their favour, may ſafely be omitted. A temperate courſe of life, and temperate indulgence in cuſtomary liquors, promiſe every advantage that can be expected from cordials, and ſtomachics. To valetudinarians, hypochondriacal perſons, and others of weak nerves, or diſturbed digeſtion, ſomething medicinal, beſides wine, may perhaps become requiſite for the bowels, and for preſerving a conſtant and ſalutary moiſture on the ſurface of the ſkin; but inanition, and ſudden changes in diet ought to be avoided; and all evacuations ought in general to be proſcribed, in reſpect to thoſe who are obliged to go into the way of infection.

Terror, deſpondence, and other debilitating affections of the mind, have been univerſally held of moſt dangerous tendency, in times of peſtilence. On the contrary, a regular flow of ſpirits, a temper not given to anticipate evils, or, when they happen, to

[26] Hodges Loimologia, p. 21. Journal of the Plague Year, p. 36.

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brood over them, and a lively hope of eſcaping the infection, are conſidered as the beſt ſafeguards againſt contagion[27]. But theſe are not in the power of medicine to beſtow; they are the bleſſings of natural conſtitution, and, where wanting, muſt be ſought in a chearful aſſociation with others who poſſeſs them, and by engagements that divert the mind from the contemplation of melancholy objects.

As preſervatives againſt the plague, iſſues have been highly recommended, and by ſome authors are repreſented as almoſt infallible[28]. I never had an opportunity of ſeeing them opened on purpoſe, with this view; and perhaps when a perſon has been ſome time accuſtomed to them, they may, in ſome degree, loſe their preſervative effect. Multitudes, of both ſexes, at Aleppo, had iſſues in their arms, it being there a very common remedy in a variety of chronic diſorders: but, notwithſtanding theſe out-lets, numbers periſhed; and I did not remark that thoſe who had them, were in any degree leſs liable than others to be infected.

A ſimilar remark may be made in regard to tobacco, ſo much recommended by Diemerbroeck, and others[28]. The cuſtom of ſmoking is univerſal among both men and women of all ranks, at Aleppo. This too, from its being habitually practiſed, might perhaps loſe part of its prophylactic virtue: at the ſame time, thoſe who uſe it as a preſervative, muſt always be ſuppoſed in ſome degree accuſtomed to it, otherwiſe the violence of its operation, on moſt perſons upon their firſt beginning to ſmoke, might prove hurtful. It ſhould further be obſerved, that the tobacco commonly uſed in Syria is much milder than the American, and that the Oriental ſmokers ſeldom, or never ſpit.

[27] Muratori, lib. iii. cap. ii.

[28] See a variety of authorities cited by Muratori, lib. ii. c. ii. p. 121. and Orræi Deſcriptio Peſtis, p. 139.

[29] Ibid. p. 139.

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It is a truth, not to be concealed, that a ſpecific preſervative againſt the plague remains hitherto among the medical *deſiderata*. In what that particular ſtate of the human body conſiſts, which ſeems to render ſome, for a long courſe of time, unſuſceptible of infection, is ſo entirely unknown, that medical art, at a loſs what to add, or what to take away, cannot act upon any general principles of practice; nor is any medicine yet diſcovered, of power to alter or deſtroy the peſtilential poiſon, when about to invade a ſubject prediſpoſed to its reception.

A ſtrong application of fire and ſmoke has been found by experience to deſtroy the contagious particles, or to expel them from certain ſubſtances to which they ſtrongly adhere, diſperſing them in the air, where they are ſoon diluted, or become inert. But the human frame, could it ſupport ſuch an application, would receive little benefit from it, if infected; nor could thoſe yet in health ſuſtain, without prejudice, the heat and denſe ſmoke, which is probably required for the perfect extinction of the infectious effluvia, floating in the confined atmoſphere of a morbid body. The milder fumigations, already mentioned, have therefore been contrived, for thoſe who enter the chambers of the diſeaſed, which, without incommoding the patient, may perhaps prove of ſome ſervice to the attendants.

At the ſame time, thoſe immediately about the ſick, ſhould pay ſome regard to other precautions, uſually recommended. They ſhould guard the mouth and noſtrils with vinegar, avoid drawing breath when cloſe to the bedſide, or ſwallowing their ſpittle while they remain in the infected chamber. Before approaching the bed, in order to examine the eruptions, the bed-clothes ſhould be removed, to give time for the diſperſion of a confined ſteam, which immediately diſcovers itſelf to the ſenſes; and it will be adviſable to dip the hands in vinegar, before handling the parts. Upon coming out of the chamber, it is proper alſo to rinſe the mouth, and waſh the hands, with

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vinegar, plain, or camphorated, and to fumigate the clothes with a little nitre, ſulphur, and juniper berries, burnt on a hot iron.

Upon returning home, it may be adviſable to ſhift clothes immediately, hanging thoſe taken off upon lines, in a ſmall chamber, to be again ſmoked, and afterwards aired. The mouth and hands ought to be once more well waſhed, and the hair might be fumigated with a little ſulphur and nitre, by means of a pipe, ſo as not to incommode the lungs.

A glaſs of generous wine, or any other cordial more agreeable to the choice, may be taken before dinner, in caſe of languor, or oppreſſion at the ſtomach, from fatigue, fetor, or apprehenſion. I found a rummer of old hock very grateful, on ſuch occaſions, in the hot weather.

It is a general and rational precept, never to go abroad faſting. I do not conceive there is any neceſſity for making alteration in the cuſtomary breakfaſt, by the addition of any ſuppoſed antidote, diſguſtful to the palate; for which reaſon medicated ales, tinctures, or other preſervatives, where judged uſeful, had better be taken ſeparately, before, or after, breakfaſt. A ſpoonful or two of Huxham's tincture of bark, (of which I happened to have a quantity ready) was the only internal preſervative I ever took myſelf. It was taken an hour after breakfaſt, diluted with an equal quantity of water. For thoſe who cannot eaſily bear fatigue without eating between breakfaſt and dinner, ſome light food may be proper, at an intermediate hour, in order to avoid going into the chambers of the ſick with an empty ſtomach, in the forenoons. In ſuch circumſtances, after a long and fatiguing morning, I have found myſelf diſagreeably affected, in my latter viſits, and have been ſenſible of ſlight giddineſs, and of the appetite flagging at dinner, as if ſomething lay on the ſtomach. I have known others much more ſtrongly affected in this manner, and conſequently more alarmed.

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In ſuch caſes, much no doubt may depend on the power of fancy; but in thoſe times the imagination requires management. So intimately is it connected with the accidental ſtate of the body, that the ſame riſk, from which a man ſhrinks in a ſtate of languor and fatigue, he will encounter undauntedly, after a temperate meal: the ſtrange, unuſual ſenſations, which amount almoſt to a perſuaſion of having caught the infection, will often, like the phantoms of a viſion, vaniſh after a few glaſſes of wine. Whether any ſlight degree of real infection can be thus diſſipated, I ſhall not take upon me to determine; it is ſufficient for the preſent purpoſe to indicate the means of reſtraining thoſe alarming ſenſations, which, when aggravated by imagination, are apt to depreſs the ſpirits, and, according to the general opinion, to reduce the human frame to that relaxed, inhaling ſtate, peculiarly ſuſceptible of contagion.

IN page 450, ſpeaking of the Quarantine Act of the 26th of George the Second, it is ſaid, "it has hitherto required no "amendment, except in changing the ſtation of infected "ſhips from New Grimſby to St. Helen's Pool; and in an "explanation of the clauſe relative to Lazarettos, by an act in "the 12th year of his preſent Majeſty."

When the above paragraph was written, I was ignorant of a late act, paſſed in the year 1788†, entitled, "An Act more "effectually to ſecure the performance of Quarantine, and for "amending ſeveral Laws relating to the Revenue of Cuſtoms."

By this act, the commander of a ſhip is required to give a true anſwer to the following queſtions, in addition to the interrogatories recited in the former act of George the Second, viz. Whether his ſhip or veſſel touched at the *Iſle of Rhodes*, the *Morea*, or any part of the Coaſt of *Africa*, within the Mediterranean or the Levant Seas, or the Port of *Magadore*; or, whether any of the ſhip's *Company*, or any other perſon on board, his ſhip or veſſel, had, during the voyage homewards, in any manner whatever, any communication with any ſhip or veſſel coming from any of thoſe places? What pilot or pilots, or other perſons from the ſhores of the kingdom of Great Britain, &c. have been on board his ſhip or veſſel, or had any communication with the ſhip's company, in any manner whatever, during his voyage homeward? And, whether any of his ſhip's company had been ſick, and of what diſorder, in the courſe of

† Anno 28 Georgii III. cap. 34.

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the voyage, or were ſo at the time the particulars are demanded? —In caſe of giving an untrue anſwer, the commander forfeits 200 l., for each offence.

It is further enacted, "That it ſhall not be neceſſary to give any actual notice of any orders of his Majeſty in Council, or of any regulations therein contained which are now in force touching and reſpecting quarantine—and that it ſhall be lawful for his Majeſty, &c. by any order or orders in Council hereafter to be made, to limit and fix a time, after which, the publication of ſuch order, in the London Gazette, ſhall be deemed ſufficient notice."

By a third clauſe it is enacted, "That after the firſt of January, 1789, every commander of a ſhip liable to quarantine, in caſe of meeting with any ſhip or veſſel at ſea, or within four leagues of the coaſt of Great Britain or Ireland, or the Iſles of Guernſey, &c. ſhall hoiſt, in the day-time, a yellow flag at the main-top-maſt head; and for the night, a light at the ſame top-maſt head; as a particular ſignal to denote that the veſſel is liable to quarantine. The commander, in caſe of neglect, forfeits 200 l."

In page 482, mentioned is made of a bill which paſſed the Houſe of Commons, in 1665, for ſupplying the defects of the Act of James the Firſt, relating to the plague, and for providing remedies to prevent the ſpreading of the contagion. Several conferences with the Lords on the ſubject of the bill were held, but it does not appear in the Journals of the Commons, what were the matters agitated in thoſe conferences.

From the Journals of the Lords † it appears, that the Earl of Bridgewater, on the 30th of October, reported to the Houſe, "that the Committee have conſidered the bill for making fur-

† Vol. xi.

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ther proviſion for ſuch as be infected with the plague;" to which their Lordſhips have added two proviſos, and made ſome alterations and amendments therein, which were offered to the judgment of the Houſe.

The bill with theſe proviſos and amendments having paſſed, was returned to the Commons, who thereupon deſired a conference, in which, on the 31ſt of October, they ſay, that to ſhow their willingneſs to comply with their Lordſhips, they agree to all the amendments. But as to the three proviſos added by their Lordſhips, the Commons do not agree to them, for many reaſons which were declared.

The Lords, upon conſideration of what was offered at the conference, agreed to leave out the proviſo concerning inmates, and agreed to leave out thoſe words (perſons of note and quality) in the proviſo inhibiting peſt-houſes and church-yards to be built near the houſes of Peers; but adhered to have Peer's houſes prevented from ſuch annoyances. This Houſe likewiſe adhered to the proviſo for exempting the Houſes of Peers to be ſhut up at the diſcretion of conſtables.

A free conference was deſired by the Lords; and in the afternoon of the ſame day, a meſſage was ſent from the Commons, deſiring a conference concerning the matter of the laſt free conference.

The Commons adhering to their former votes, the affair ended.

APPENDIX.

APPENDIX.

CHAP. I.

Cases in the Plague.

CASE I.

THE porter of Abſey's khane, and his ſon, a youth about twenty years of age, were taken ill on the ſeventeenth of May. The ſon died on the 3d day, and (as I learned ſome weeks after) had a bubo in the groin; a circumſtance which, at the time, was concealed by the people about him. 1760. May.

The father was a robuſt man, upwards of ſixty. I ſaw him, for the firſt time, on the evening of the 5th day of the diſeaſe. On my entrance into his chamber, he lay as if comatous, but anſwered diſtinctly when interrogated about his complaints. He ſaid he found himſelf extremely ill, and was tormented with inward heat, but was not ſenſible of any other pain, than a conſtant burning, at the pit of the ſtomach, or, as he expreſſed it, at his heart. The attendants ſaid, he had been, at times, much more unquiet and ill than he then ſeemed to be, and that they had ſearched, but diſcovered no marks of infection. He had vomited frequently during the firſt three days, and when the vomiting left him, it was ſucceeded by a looſeneſs, which ſtill continued. He had been twice bled. I found his pulſe ſunk, and very quick, the eyes muddy, the tongue not parched, or diſcoloured; the hands and arms felt cold to the touch, and were covered with a clammy ſweat.

On the 6th, early in the morning, he appeared, to his attendants, to be much better. When I viſited him, in the afternoon, he was ſupping broth, which he took as if with appetite, though he ſeemed to ſwallow with ſome difficulty. The pulſe remained as before, and the hands were ſtill cold and clammy.

In the evening, I found him in all reſpects worſe. He was quite inſenſible; his extremities cold; and he lay on his back, with his knees drawn up, and his eyelids half cloſed. He expired in the night. His back and thighs became livid, immediately after death.

The attendants perſiſted in their firſt aſſertion, of his having no buboes.

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CASE II.

1760. May.

In the ſame chamber with the above patient, lay his brother, a robuſt youth, between twenty and thirty, who had been taken ill on the nineteenth, I viſited him the evening of the 3d day. His pulſe was low, but not very quick; his arms cold and clammy; his eyes muddy, in an uncommon degree, and his countenance remarkably confuſed. He complained of inward heat; conſtant thirſt; intenſe pain at the heart; and extreme inquietude. A vomiting had attended from the 1ſt day, and water, of which he drank inſatiably, was ſeldom retained on the ſtomach. His body alſo was looſe, but not to a great degree.

Though I was aſſured by the attendants that he had no eruptions, I determined to ſearch him myſelf; my private ſuſpicion of the nature of the diſtemper being, from other circumſtances, highly raiſed. I therefore deſired the patient, who was quite ſenſible, to let me know when I gave him any pain, and then proceeded to touch the groins and arm-pits, without cauſing any complaints. I was about giving over the ſearch, when I perceived a hard ſwelling, about the ſize of a ſmall hazel nut, deeply ſeated in the left axilla, near the edge of the pectoral muſcle. It was a ſwelled, moveable gland; the ſkin was a little protruded, but retained its natural colour. The patient affirmed he felt no pain from preſſure, in this ſwelling; but he was probably reſtrained, by apprehenſion of being abandoned, from ſpeaking the truth.

Next morning, I found him much in the ſame ſtate as the preceding night, only that he ſeemed diſpoſed to be comatous. The aſſiſtants told me he had vomited much bile in the night, by which he ſeemed to be relieved, and, the inclination to doze, they conſidered as a good ſign. One of them, whom I deſired to examine the left arm-pit, declared, if there had ever been any ſwelling there, it was now gone: he likewiſe ſearched the groins, and pronounced them equally free. Though I gave little credit to the firſt part of this report, I deferred ſatisfying myſelf till the evening, and then found the axillary bubo increaſed to the ſize of a pigeon's egg, hard, leſs moveable, but the ſkin, as before, not diſcoloured. It was now become painful when touched, though the patient was rather leſs ſenſible than in the morning. The vomiting and looſeneſs had been very moderate, and, in other reſpects, matters remained in the ſame ſtate as before.

On the 5th, I did not ſee him. The bubo, I was told, remained as yeſterday. The inquietude, &c. increaſed, and he died at night.

Two

Two or three Turks, one of whom was ſuſpected to have peſtilen- CHAP. I.
tial eruptions on his body, had lodged at Abſey's khane, for ſome days, about the middle of May, on their way to Diarbeck, from Damaſcus; and from them it was ſuppoſed the porters had received the infection. 1760. May.

It ſhould be remarked, that theſe three patients, were attended conſtantly, in turn, by four other Armenians, all of whom eſcaped the infection.

The diſcovery of the tumour confirmed my former ſuſpicions. But as I had never before had occaſion to ſee the plague, and was aware of the alarm my declaration of the diſtemper would cauſe in the city, I thought it more prudent to wait till next day, when the re-examination of the axilla, would probably enable me to judge with more certainty. On the morning of the 3d day, ſeveral people of the khane, led by curioſity, had followed me up ſtairs and crowded about the door of the chamber, which obſtructing the only acceſs for freſh air, rendered the air within cloſe and ſtifling. The examination of the other patient having already taken up ſome time, I thought it needleſs to ſatisfy myſelf about the bubo, at the riſk of protracting my ſtay in the ſmall, infected chamber. In the evening, I ordered the patient to be immediately uncovered, and having ſatisfied myſelf, ſoon retired.

CASE III.

A youth, about twenty, of a ſanguine habit, the ſon of a Jewiſh ſeraf, or June.
banker, on the thirteenth of June, was ſuddenly taken ill with a giddineſs, a ſhivering cold, and a nauſea, whilſt employed in his ſhop in the *Bazar*. Upon being brought home, he was ſeized with a vomiting, which continued with little interval throughout the night. A ſtrong fever ſucceeded to the ſhivering fit, and, ſoon after midnight, he became delirious. A large quantity of blood was taken from the arm.

I viſited him at noon, on the 2d day. His pulſe was low and quick, his cheeks flushed; the external heat moderately feveriſh, and nothing remarkable appeared on the tongue. His eyes were a little reddiſh, and muddy to a degree beyond what I had obſerved in the laſt ſtage of the moſt malignant fevers. He ſeemed inſenſible of any thing that was ſaid to him, but was perpetually ſhifting his poſture in bed, and writhing his limbs, as if extremely diſturbed. The vomiting ſtill continued, and he had had ſeveral fetid ſtools, ſince morning. The women had obſerved ſome reddiſh ſpots on his arms, early in the morning, but I could now diſcern no veſtiges of them. He had at firſt vomited bile, but though the retching continued almoſt inceſſantly, it was with difficulty any thing came off from the ſtomach, though, from time to time, they prevailed on him to drink water.

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1760. June.

Fifteen grains of ipecacoanha were given immediately, which brought off a good deal of bile, but the retching continuing as before, throughout the night; the diaphoretic medicines,[1] that had been ordered, did not remain on the ſtomach. He had ſeveral looſe ſtools. By the accounts of his attendants, he had ſhown ſome diſpoſition, more than once in the night, to ſweat, which they conceived was checked by his perpetual changing poſture, and throwing off the bed-clothes: He became more compoſed towards morning, ſeemed more ſenſible, and talked a little; but in leſs than an hour relapſed into his former ſtate.

At noon, on the 3d, I found his pulſe ſunk, and his hands and arms cold and clammy. In other reſpects he remained as yeſterday. The women had ſearched him without diſcovering any eruptions, but in ſearching with my own hands, I found a ſmall, hard, incipient bubo, in the right axilla, near the edge of the pectoral muſcle. In touching the left axilla, he ſeemed alſo to ſhrink, but I could perceive no ſwelling, and he was ſo reſtleſs, that what I miſtook for a ſenſe of pain, might have been no more than an accidental movement of his arm.

He was greatly exhauſted by the inceſſant retching, from which, however, he was relieved in the afternoon, ſoon after taking the antiemetic mixture,[2] and the application of ſinapiſms to the feet. Towards evening he became manifeſtly worſe. The anxiety and inquietude increaſed, accompanied with ſudden changes of countenance, the face being ſometimes flushed, at other times pale, and cadaverous. He expired about midnight.

One or two of the diaphoretic draughts, which had been taken in the evening, remained on the ſtomach.

This accident happening before the Europeans had retired, or ſhut up, much pains were employed to conceal its being peſtilential. It was induſtriouſly given out, that the man who waſhed the corpſe, had declared to the kahan, or high prieſt, upon oath, that there were no external marks of infection viſible on the body. But this was not true; for it afterwards came to my knowledge, that he had ſeveral large purple ſpots on the thighs, which, by the Jews, are conſidered as peſtilential marks.

The patient lay in a ſmall, but clean chamber, with a low ceiling, and was well attended by three women, beſides his mother, who were almoſt conſtantly ſitting on, or near the bed. None of them caught the infection; but an elder brother of the deceaſed was ſeized with the plague on Tueſday the twenty-fourth, and died the Friday following: upon which the family abandoned the houſe.

[1] Deſcribed before, p. 155. [2] The alkaline ſalt and lemon juice in the act of effervescence.

The

The grave digger, who had been employed in burying the firſt youth, was taken ill, on his return from the funeral, and died on Friday the twentieth, having communicated the infection to his brother, from whom it paſſed ſucceſſively to four other perſons in the family. CHAP. I. 1760. June.

CASE IV.

A widow lady, about forty, of a delicate, thin habit, and the mother of ſeveral children, found herſelf indiſpoſed on the twelfth of July, in the evening, and obſerved one of the glands of her neck a little ſwelled. Next morning, ſhe was pretty well, but, in the evening, became hot and feveriſh, and the ſwelling increaſed. On the 3d day ſhe was bled. July.

I ſaw her the 6th day, in the morning. Her eyes had not the muddy appearance, ſo remarkable in the plague, but her countenance was ſtrangely altered. The forehead was ſtreaked with purpliſh red, and her cheeks flufhed, and were pale, by turns. The pulſe was moderately full, but exceedingly quick; the ſkin felt hot and burning; and the tongue was whitiſh, not parched. She complained of head-ach, and of pain at the heart. Her thirſt was moderate; ſhe had a conſtant loathing, but had not vomited. She had retained her ſenſes from the beginning, and gave me a diſtinct account of what had paſſed, adding, deſpondently, that ſhe was ſure ſhe muſt die. The parotid of the right ſide, was enlarged to the ſize of a hen's egg, and two of the cervical glands alſo were conſiderably ſwelled. Theſe tumours were hard, painful, and ſlightly inflamed in the middle.

The exacerbation, on the night of the 6th, had been violent. She vomited frequently, and had a ſtool, for the firſt time in five days. Her condition on the 7th, was much the ſame as yeſterday. The 8th, ſhe appeared to be worſe. The tumours were enlarged, but had made no approach to maturation. The 9th, I ſaw her not, but was informed ſhe remained in the ſame ſtate. She had hitherto taken the diaphoretic mixture, and acidulated cordials, but from this time (I believe) took no medicine. She died the 11th day of the diſeaſe.

CASE V.

The daughter of the lady, (Caſe IV) a ſprightly, healthy girl, eight years of age, was taken ill at the ſame time with her mother. I ſaw her on the 6th day, for the firſt time. Her eyes were a little muddy, her face pale; but there was little alteration in her tongue. The pulſe was low, and exceedingly quick. The external heat was conſiderable, but, by the nurſe's account, ſhe was then leſs feveriſh than the preceding day. She had a bubo, ſituated unuſually high, in the right axilla, about the ſize of a green walnut, hard,

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1760. July.

hard, and painful, but without external inflammation. On each arm were two puſtules (the ſize of a ripe ſmall-pock) which had been protruded on the 4th day. Theſe, at top, were covered with a browniſh cruſt, from beneath which ouzed a thin ichorous matter. The ſkin round them, was not ſo intenſely red as I had before obſerved in carbuncles. Beſides theſe eruptions, one leſs common, was ſituated in the left arm, above the uſual place of opening iſſues. This was a hard, painful, glandular-like ſwelling, larger than a hazel nut, and deep ſeated under the ſkin, which was neither tenſe, nor inflamed.

Circumſtances prevented my ſeeing this girl after the 9th day. The axillary bubo opened in the third week, and ſhe recovered very well.

An old woman, who attended conſtantly on this girl and her mother, was not infected.

CASE VI.

Auguſt. A Turkiſh young man, an inhabitant of the ſuburb *Maſhirka* was, on the ſecond of Auguſt, ſeized ſuddenly with a ſhooting pain in the right groin. He ſoon after found himſelf feveriſh, and complained of nauſea, and, at times, had an inclination to vomit.

I found him, on the 4th day, in appearance ſlightly indiſpoſed. The pulſe and external heat were moderately feveriſh; the tongue was not diſcoloured, or parched, and his eyes retained their healthy clearneſs. His principal complaint was the pain of the bubo, and difficulty in walking, cauſed by the contraction of the thigh. The bubo, on examination, was found in the uſual place, near the crural veſſels, very hard, not moveable, and though not inflamed externally, nor very protuberant, the ſkin appeared tenſe, and he could not bear the ſlighteſt touch, without complaining.

I ſaw this patient once only, and from the forward ſtate of the bubo, as well as the ſeeming ſlightneſs of the attack, imagined he would recover. But I happened to be out in my conjecture; for he died on the night following, being the 5th day of the diſeaſe.

CASE VII.

A Jewiſh rabbi, between thirty and forty, and of a thin ſpare, habit, had been taken ſuddenly ill in the afternoon of the 1ſt of Auguſt. The people about him could give but an indiſtinct account of his firſt complaints, further than that he ſoon became feveriſh, and, in the evening, loſing the uſe

of

of his tongue, he remained ſpeechleſs all that night, and the day following. On the 2d day he was bled, and in the afternoon, a bubo was diſcovered in the left axilla. CHAP. I.

1760. Auguſt.

I ſaw him the morning of the 3d day. His eyes were muddy, and his countenance dejected; the pulſe low and quick; the external heat moderately feveriſh, and his tongue moiſt. He had often vomited yeſterday, and again this morning; but was now compoſed, and had recovered the uſe of his tongue. Though ſpeechleſs yeſterday, he had not been altogether inſenſible to what paſſed, but recollected indiſtinctly. He now made the uſual complaint of pain, or oppreſſion about the præcordia.

The bubo was nearly as large as a pigeon's egg, hard, and exceedingly painful when touched, but the ſkin retained its natural colour. There were a few *petechiæ* on the neck, of a pale red colour. He had been coſtive from the beginning. He expired early next morning.

Of ſeveral females who cloſely attended this patient, all eſcaped the infection, his wife excepted. She was taken ill about eight days after her huſband's death; had a bubo in the groin, which came to ſuppuration, and ſhe recovered.

CASE VIII.

1761. March.

An Arab, an elderly man, on the twenty-ninth of March, was ſeized with a ſhivering fit, and a vomiting, to which ſucceeded a fever that became extremely violent in the night. The fever and vomiting continued all the day following, but abated ſomewhat in the afternoon, after the eruption of a bubo in the right groin, and he paſſed the night leſs unquietly than the night before.

I found him, the morning of the 3d, in appearance lethargic, and ſenſeleſs; though when I ſpoke loud in his ear, he anſwered my queſtions ſenſibly, but immediately relapſed into dozing. I was prevented, by his ſituation in bed, from diſtinctly diſcovering his eyes; his tongue was white, the heat of his ſkin was little above natural, and his thirſt very moderate. The pulſe was ſunk, quick, but regular. The bubo lay obliquely near the crural veſſels; it was of the ſhape of a cucumber, not larger than half the length of the thumb. It was very hard, and painful, though the ſkin was not inflamed. He expired in the night.

His wife acquainted me, that ſhe ſuſpected he had contracted his illneſs in a *Keiſaria*, in the neighbourhood, which he uſed to frequent, and where ſeveral perſons ſtill lay ſick of a like diſtemper. This information con-

CHAP. I.

confirming what I had heard before, I ſet out for the *Keiſaria*, which was ſituated under the caſtle, at a little diſtance from the horſe market. It was inhabited chiefly by Arabs, who conſtantly reſided there with their families, and got their livelihood, as daily labourers, under the maſons, terrace-makers, and white-waſhers.

1761. March.

On my arrival at this place, I endeavoured, from the ſurviving inhabitants, to collect information relative to reports that had been brought me before. The reſult of what I learned was, that of above forty who had been ſeized with the diſtemper, after the nineteenth, or twentieth of March, not one had recovered, except a girl about fourteen, whom I found with an axillary bubo tending to maturation; all the others had periſhed, after an illneſs of three or four days: ſome without any external marks on the body, but moſt of them with ſwellings in the thighs, about the throat, or behind the ears.

CASE IX.

The firſt patient I examined, in this *Keiſaria*, was an Arab woman, about thirty, who had been taken ill on the twenty-eighth, with a vomiting, and a ſhivering fit, ſucceeded by a fever, as in Caſe VIII.

April. I ſaw her early on the morning of the 4th day. Her eyes were muddy, and her countenance much confuſed; her tongue was ſomewhat dry, and retained its natural colour in the middle, but there was a ſmall, white ſtreak, on each ſide; the external heat was moderately feveriſh; her pulſe was ſo extremely ſunk, that it was hardly perceptible, in either wriſt. She had ſuffered much the two firſt days, from vomiting, which had now ceaſed; but ſhe complained of weight, or pain about the pit of the ſtomach, and ſeemed very unquiet. I was told ſhe had a bubo in the groin; but as the women refuſed to remove her ſhift, I did not inſpect it myſelf. One of them, who touched it, ſaid it was very hard, and the patient ſeemed to complain when it was handled. She died the ſixth day.

CASE X.

On the ſame bed with the woman (Caſe IX) lay her ſon, a boy of eight or ten years old, who (I think) had been taken ill the day after the mother. This, therefore, was the 3d of the diſeaſe. His eyes had ſuffered little or no change; the tongue was like that of the mother; the face was flushed; and the ſkin, externally, was hot. The pulſe was quick and low, but equal. He complained of ſtrong head ach; vomited frequently; and, in the intervals, ſhowed much diſpoſition to ſlumber. He had a bubo in each thigh, near the crural veſſels; that of the right ſide being the largeſt, more painful, and

and the ſkin, though not inflamed, ſeemed to be ſomewhat diſcoloured. Both tumours were hard, and pretty large, but notwithſtanding a conſiderable protruſion of the ſkin, it felt rather puffy than tenſe, to the touch. CHAP. I. 1761.

I received no certain information of the event of this caſe. April.

CASE XI.

A Jewiſh boy, between ſeven and eight years old, of a pale, unhealthy complexion, was, on the tenth, taken with a vomiting, head-ach, and fever. Next day he complained of pain in both groins, and the mother, upon inſpecting the parts, diſcovered two ſwellings. The ſubſequent exacerbations of fever, had, by her account, been conſiderable.

I ſaw him on the 7th day. His eyes and tongue ſhowed nothing remarkable; the heat of the ſkin was temperate, and the pulſe ſlightly feveriſh. Though the boy looked unwell, it was rather the ſqualid look of the children of the poor of this nation, when labouring under chronic complaints, than any appearance that could, in peſtilential times, raiſe alarm, and I ſhould have had no ſuſpicion, if the mother, after two days, had not confeſſed the diſcovery of the ſwellings, which hitherto had been carefully concealed from me.

Upon examination the 9th day, I found a bubo in each thigh, near the crural veſſels. Both were conſiderably protruded, but the ſkin was puffy, and not inflamed. Upon firſt touching the tumours, they appeared to me ſoft, a deception ariſing from the intermediate ſkin, for when more carefully examined, the glands, which were deeply ſeated, were found hard: though I think leſs ſo, than the buboes generally are in a more inflammatory ſtate.

Suppurative cataplaſms had been applied, but without effect. He was repeatedly purged, and, the tumours gradually diſperſing, he recovered ſlowly.

CASE XII.

A Jewiſh lad, about fourteen, on the ſecond of May, felt a pain in both groins, ſoon after having leaped down a ſtair, in play with ſome other boys. He was a healthy, florid youth; and either was ſenſible of no other indiſpoſition, beſides the pain in the groins, or concealed it, that he might not be diſappointed in going next day, on a party to the gardens. Next evening he returned from the gardens, with a fever and head-ach, and the mother, remarking as he undreſt, that he moved one arm as if in pain, he told her his arm had been twiſted by one of his companions, and that it was ſore under the arm-pit. The fever increaſed conſiderably in the night. May.

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1761. May.

When I viſited him in the morning of the 3d day, I found his eyes beginning to be muddy; the tongue whitiſh; the pulſe quick, and rather full; and the feveriſh heat moderate. He complained of head-ach, and giddineſs, but ſhowed no diſpoſition to vomit.

Having heard the account of the two firſt days, I ſuſpected the circumſtance of the leap to be a fiction of the boy, in order to avoid the imputation of having a diſtemper which, among the Jews, always occaſions much alarm. I therefore ordered him to be immediately ſtripped naked, that I might examine the parts free from the incumbrance of the clothes in which the natives ſleep, and in handling which, there is, perhaps, more danger, than in touching the bodies of the infected.

Low in the left axilla, towards the edge of the pectoral muſcle, there was a hard, moveable bubo, the ſize of a hazel nut, not diſcoloured, but very painful, when touched. In the groin of the ſame ſide there were three ſmall, enlarged glands, one properly in the groin, about half the ſize of that in the axilla, the other two lay near the crural veſſels. All of them were painful to the touch, but the ſkin retained its natural colour.

The patient had been ſcarified in the legs, early in the morning, but, the quantity of blood loſt in that way being very inconſiderable, I ordered him to be bled in the arm, and waited till the operation was performed. The blood appeared of a darkiſh colour, at firſt, but the patient growing faint, little more than a ſmall cup-ful was taken away. Being examined at the diſtance of two hours, the craſſamentum was found of a ſoft, looſe texture, and its ſurface blackiſh; but the quantity of ſerum was not more than is uſually ſeparated in the ſame time.

After the bleeding, he took fifteen grains of ipecacoanha, which operated twice, but brought off no bile. Draughts with the ſpirit mindereri were ordered. In the evening, the pain in the axilla decreaſed, while that of the groin increaſed. He was hot, thirſty, and reſtleſs all night.

The morning of the 4th, the eyes remained as yeſterday; the tongue had become yellowiſh; the face was ſomewhat flushed, but the pulſe was leſs feveriſh. I found the axillary bubo decreaſed, and, as the boy ſaid, not painful; the inguinal, on the contrary, was increaſed to the ſize of a pigeon's egg, and very painful: the indurated glands near the crural veſſels, had diſappeared. The uſual diaphoretic mixture was ordered, inſtead of the ſpirit. mindereri, and he took frequently of an acidulated, ſimple cordial. The fever increaſed in the evening, and he was delirious moſt part of the night.

On the 5th, in the morning, I found the fever moderate; the patient's condition, in other reſpects, was the ſame as yeſterday. The inguinal bubo rather

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1761. May.

rather larger, that in the axilla almoſt gone. He had all along, after the firſt day, denied the having any pain in the right groin, but upon examination this day, two ſmall, hard, painful ſwellings were found there. Towards noon, the fever increaſed, but declined ſomewhat, after a ſhort ſweat, and a copious ſtool, in which ſeveral worms were diſcharged. A much more ſevere exacerbation came on in the evening, and continued till noon, next day. He remained in conſtant delirium, and often attempted to get out of bed. The diaphoretic medecines were taken pretty regularly four or five times a day: and poultices were applied to the buboes.

I found him, near noon, on the 6th, rambling, and talking incoherently, but, when ſpoken to, he ſeemed to recollect himſelf. The pulſe was in a ſtate almoſt natural, and the heat of the ſkin temperate. The tumours remained as yeſterday, but the bubo of the right groin was become ſo painful, that the patient could not bear the thigh to be moved. The exacerbation of the fever, with delirium, inquietude, &c. returning in the evening, ſinapiſms were again applied to the feet.

The forenoon of the 7th, his eyes were more muddy than ever; the pulſe ſunk; he talked leſs in his delirium, and ſeemed more inclined to doze. The tongue had recovered its natural colour, and the urine was like that of one in health. The buboes of both groins were decreaſed in ſize, but remained painful as before. About noon, he ſweated copiouſly, and was remarkably better for ſome hours after; but, the exacerbation returning, he was, as uſual, delirious all night. The ſinapiſms were repeated, and ſpirit. mindereri joined to his mixture.

I ſaw him not on the 8th, but was informed he remained much in the ſame way as yeſterday, only that he had not ſweated at noon. Having had no paſſage ſince the 5th, the women applied a ſuppoſitory, which procured two ſmall, black ſtools, very fetid.—In any other diſorder a glyſter, or a laxative medicine would have been admitted: but here, popular prejudice was too ſtrong againſt both. The delirium, at night, run high, the patient was extremely unquiet, and talked inceſſantly, but from the tremulous affection of his tongue, what he ſaid was unintelligible to thoſe about him. The ſinapiſms had been ordered, but were not applied, the women conceiving him in too deſperate a ſtate for any remedy.

His eyes, on the 9th, were more muddy than on the 7th; his tongue ſomewhat dry, and yellowiſh in the middle; the pulſe low, but in other reſpects natural; and the ſkin was temperately hot. He lay half comatous, and articulated with difficulty, when rouſed. The buboes continued painful, but were certainly decreaſed in ſize. He had for theſe two days, paſſed

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his urine inſenſibly; a little that had been preſerved this morning, was of a natural colour, and had a ſmall cloud ſuſpended in it. In the evening's exacerbation, he began to rave as uſual, but an hour after the ſinapiſms had been applied, he complained of the pain they occaſioned, and became more compoſed.

The 10th day, having ſweated early in the morning, he was relieved, and continued much better (as his attendants thought) all the forenoon. I found his pulſe, however, ſunk, and much quicker than for ſome days paſt, and his countenance altered for the worſe. He was rather more ſenſible than yeſterday, and his tongue leſs impeded; but he ſuffered at times from a hiccough. The buboes gave him pain when his limbs were moved, but otherwiſe he made no complaint. The evening exacerbation came on, attended by the uſual train of ſymptoms, but was of ſhorter duration: a ſweat broke out before midnight, and he continued ſweating profuſely till morning.

The 11th I ſaw him not; but was informed he was extremely low and exhauſted, after the ſweat, and had paſſed a very unquiet day: and further (which had greatly alarmed the women) that he had had three ſtools in the afternoon, conſiſting merely of black blood. I ordered ſome tincture of bark to be added to his uſual mixture.

The 12th he had paſſed a leſs unquiet night than uſual. His eyes were leſs muddy, and his looks every way mended. The pulſe, though feveriſh, was more raiſed, and not ſo quick as on the 10th. The appearance of the urine remained the ſame as before. The left bubo was enlarged, and more painful, but was not yet inflamed, externally. The largeſt of the three ſtools of yeſterday had been kept for my inſpection. It conſiſted of about three cupfuls of black-coloured blood, without any mixture or fetor. The other two were of the ſame kind, but inconſiderably ſmall.

The women, on ſhifting his clothes yeſterday, diſcovered an eruption on the left ſide, under the falſe ribs, which had hitherto eſcaped their notice, and of which the boy had never complained. This I found to be a carbuncle, of the ſize of a ſhilling, with an eſchar in the middle, half as large, and its outer edge of a duſky, red colour. The eſchar was dry, and ſhowed no ſigns of ſeparation. This eruption was dreſſed in the ordinary way; and gum plaſters, for the buboes, were ordered inſtead of the cataplaſms. He had another tolerably good night.

I found him, on the 13th, clearer, and more compoſed than yeſterday. He was ſtill feveriſh, but his ſkin moiſt. His urine was higher coloured; other circumſtances as before. I wiſhed to have purged him, at this time, but, from dread of a diarrhæa, the mother would conſent only to a ſuppoſitory.

tory, by which one ſmall ſtool was procured. The 14th, he was rather more feveriſh than yeſterday, and his tongue dry, but his eyes were clearer, and the urine was turbid. Upon urging the expediency of cleanſing the bowels, I at length prevailed, and a purging potion was ordered to be taken next day. The bubo had decreaſed in ſize. He ſlept ſome hours in the night. 1761. May.

The 15th, I found him ſtill feveriſh; but his pulſe was mended; his tongue had become moiſt, and he looked, as well as found himſelf, better. The eſchar of the carbuncle caſt off; but the ſwellings on the thighs, though painful, ſeemed to have decreaſed. The potion operated five times. He took an opiate at bed-time to compoſe him, which had its effect, and tincture of bark, with elixir of vitriol, was ordered twice a day.

The 16th, he was entirely free from fever, but more ſenſible than ever of loſs of ſtrength. The left bubo was enlarged; the other more painful.

The 18th, recovering. He has had two ſtools daily ſince the purge. The left bubo, ſoft, reddiſh, and tending to maturation; the right ſtill hard.

The 22d, had continued very well till laſt night, when he became feveriſh; but the left bubo opening of itſelf, this morning, the fever immediatly diſappeared. The carbuncle was almoſt healed. The purging potion was repeated on the 24th, and the bubo, in the right groin, opened in the firſt week of June.

This boy was moſt affectionately attended by his mother, who was very attentive, and gave a more diſtinct account of what paſſed in the courſe of the diſeaſe, than could uſually be procured from attendants on the ſick.

Two other women, with a girl of ſeven or eight years old, were often in the chamber, and during the two or three firſt days of his ſickneſs, he had been viſited by more than a dozen of women; but none of them, ſo far as I could learn, were afterwards infected.

CASE XIII.

A Jew, of a thin, ſpare habit, the ſervant of a diſtiller of ſpirits, on the ſeventh of May, at noon, obſerved a ſmall angry puſtule upon his right leg. In the afternoon, he had a ſlight ſhivering fit, followed by head-ach, and towards evening he was bled in the arm. He bore the bleeding very well, but, before leaving the barber's ſhop, he, of a ſudden, found himſelf ſo much diſordered (not faint) that he was in doubt whether he ſhould be able to walk to his own houſe. In the night he was very feveriſh, and, I think,

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think, vomited. The 2d day, the puſtule had ſpread and was very painful; he was ſenſible alſo of pain in the right groin. He vomited ſeveral times in the night, but on the whole, was leſs unquiet than the firſt night. The 3d, the vomiting became more frequent; and he had ſeveral looſe ſtools. In the night he was highly feveriſh, had intenſe thirſt, but could retain nothing on the ſtomach.

I viſited him at noon, on the 4th day, and received the above account. I found his eyes muddy, and a little inflamed; the face flushed; the tongue whitiſh near the roof, otherwiſe moiſt and unaltered; the pulſe ſoft, equal, and not very quick; and the heat externally, moderate. He was perpetually changing poſture; deſponded of recovery, but made no other complaint than of the pain of the eruptions. Whilſt I was yet in the chamber, he roſe up from bed and went towards the door, in queſt, as he ſaid, of freſh air, but was ſoon prevailed on to lye down again; and though he had at this time ſomething peculiarly wild, and frantic in his look, yet he anſwered diſtinctly to the queſtions I put to him.

The carbuncle was on the external part of the tibia; a little lower than the middle of the leg. It was larger than a ſhilling in circumference, a black eſchar was formed in the centre, round which, the cuticle being raiſed unequally, ſeemed to contain a duſky, yellow matter; but the ſkin round the baſe of the eruption, though ſwelled and tenſe, was not red, the redneſs only beginning where the carbuncle began to be protuberant. The bubo was ſeated near the crural veſſels; of an oblong ſhape, as large as a walnut, hard, and very painful; but the ſkin retained its natural colour. The vomiting and looſeneſs ſtill continued.

This man died on the night of the 6th day. He took no medicine whatever.

CASE XIV.

The wife of the Jew (Caſe XIII) a woman of a delicate frame, and ſix months gone with child, was ſeized with violent head-ach, and other feveriſh ſymptoms, on the eighth, at night, the day after her huſband. She was bled the day following, and a bubo appeared in the right axilla. She paſſed that night very unquietly, and frequently vomited.

I found her, on the 3d, in the ſame chamber with her huſband. Her eyes were muddy, but not inflamed; her countenance confuſed, and dejected. The tongue whitiſh near the root, and dry; the ſkin hot; and the pulſe quick, and fluttering. Her chief complaints were oppreſſion

at

at the heart, and violent pain in the forehead; ſhe continued to vomit frequently, but had had no ſtool ſince the 1ſt day. The bubo in the axilla was leſs than a pigeon's egg, hard, and I think, immovcable; the ſkin was not inflamed, but conſiderably protruded. The tumour, when ſhe moved the arm, was exceedingly painful. She died the 6th day, in the morning, having brought forth a child when in the agonies of death. CHAP. I. 1761. May.

Theſe poor wretches, inhabited an old ruinous houſe, ſeveral ſteps lower than the level of the ſtreet. I directed proper drinks, and deſired they might ſend for medicines; but heard no more of them till after they were buried. The reſt of the family conſiſted of three children, the man's father, the mother of the wife, and another elderly woman. The two women had conſtantly attended the ſick, but eſcaped infection; as well as the man and two of the children: the third was infected, and died ten days after the mother. This was one of thoſe miſerable dwellings which, from the want of ventilation, the ſordid beds, and neglect of cleanlineſs, I always conſidered as dangerous receptacles of contagion. The eſcape of theſe people, therefore, happened contrary to my expectation.

CASE XV.

A youth of a delicate conſtitution, a French native of Aleppo, complained on the thirteenth of May, of head-ach, he ſoon became feveriſh, and was hot and reſtleſs in the night. A medical gentleman, who ſaw him next morning, finding the fever continue, and that he complained of a fulneſs, and pain in the throat, bled him copiouſly, and ordered a laxative glyſter, which operated two or three times. The throat became eaſier after the bleeding, but about noon, a ſmall, painful, yellowiſh puſtule was obſerved on the hind part of the neck. Towards evening the fever increaſed, and in the night he was at times delirious; but in the morning he grew more compoſed, and had a ſtool. His caſe had not hitherto been thought peſtilential, but the eruption on the neck, and his unexpected illneſs in the night, had raiſed ſome ſuſpicions, and the father entreated me to call in the courſe of my viſits.

I ſaw him the morning of the 3d day. His eyes were ſomewhat muddy, and his countenance much confuſed; the tongue whitiſh, not dry; the pulſe quick, and moderately full. Upon firſt touching the ſkin, the external heat ſeemed little more than natural, but when the hand remained a little, the heat felt burning, and intenſe. The carbuncle on the neck, which had paſſed for an ordinary, inflammatory eruption, was now enlarged to the ſize of a ſhilling, protuberant, gradually, from the baſe, growing of a deeper red, and,

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and, at the top, the ſkin, which was a little wrinkled, ſeemed to confine a yellowiſh matter. The ſkin round the tumour was ſlightly inflamed. Near this carbuncle, was a ſmall puſtule reſembling a pock, on the ſecond day of eruption, the ſkin round which was of a deep red. The father came to acquaint me, in the evening, that a ſmall red ſpot had appeared on the cheek. I declared the diſorder to be the plague, and adviſed the family to proceed accordingly. The gentleman who attended him was of a different opinion, ordered ſome nitrous medicine to be taken at night, and a galbanum plaſter to be laid on the tumour, but this application giving much pain, was, by the women, changed for a common poultice. Pigeons were applied to the feet.

The eyes were leſs muddy the morning of the 4th, but the countenance ſtill confuſed and dejected; the tongue as before; the external heat leſs ardent; the pulſe lower and quicker than yeſterday. He had entirely recovered his ſenſes. The carbuncle was increaſed to the ſize of a ſmall walnut, the top, as before, without any appearance of gangrene, but the ſkin round the tumour was of a deeper red. The puſtule in the ſame ſtate as yeſterday. Two flattiſh, ſmall, yellow puſtules, round which the ſkin was of the colour of a recent flea bite, were now viſible on the left cheek. At their firſt appearance, laſt night, they looked like red ſpots, not elevated above the ſkin. I had yeſterday adviſed the examining the thighs and arm-pits, which I was informed had been done, but as no ſwellings were found there, it was concluded I was miſtaken in the diſeaſe. The boy, at this time, was quite ſenſible, and perſiſted, as he had done all along, that he felt no pain, except from the tumour on the neck. Though buboes were not, in this caſe, neceſſary to confirm me in my opinion, I was led by curioſity to ſearch the patient myſelf, and without much ſurprize, found a bubo in the left thigh. It lay near the crural veſſels, was of the ſize of an almond, hard, deep ſeated, and ſo painful that he complained on the ſlighteſt touch.

The glands in the groin were a little ſwelled. He then acknowledged that he had felt pain in that place from the firſt day at noon, but was afraid to mention it leaſt people ſhould ſay he had the plague. The gentleman who had hitherto treated him, having no remaining doubts, declined further attendance.

About noon the patient vomited two or three times, and diſcharged ſome bile, after which the fever increaſing, he loſt the uſe of his tongue, became delirious, and extremely reſtleſs. A diaphoretic medicine was ordered, and his drinks were acidulated with ſpirit of vitriol. He became ſtill worſe, about nine at night, when he firſt took the medicine; and

and growing worſe and worſe, ſinapiſms were applied to the feet, about eleven, but with little or no alleviation of the ſymptoms. Towards morning he became leſs reſtleſs, but recovered his ſenſes only partially, and ſeemed much diſpoſed to ſlumber. He ſhowed very little deſire to drink. CHAP. I. 1761. May.

The morning of the 5th, at ten o'clock, I found him as ſenſible as yeſterday; his tongue white; his pulſe, as well as the external heat, ſlightly feveriſh. The face was ſtrangely diſfigured by the eruptions. The two carbuncles on the right cheek were enlarged, and the eye on that ſide almoſt hid by the ſwelling of the ſkin. Beſides theſe, four others had been protruded in the exacerbation of laſt night; one on the left ſide of the face, one near the corner of the mouth, one on the chin, and one on the neck. All which, together with the ſmall puſtule mentioned on the 3d, were now become black at the top, and ſurrounded by circles of a deep red colour. The firſt carbuncle had ſpread, and ſeemed diſpoſed to grow black like the others. In the evening, a new carbuncle was diſcovered on the crown of the head, and two puſtules (repreſented to me as different from the others) on the right ankle, with one of the ſame kind on the thigh. His arms, through the day, had been ſeveral times affected with convulſive ſtartings different from the ordinary ſubſultus tendinum, being much more violent, and returning at longer intervals. The evening exacerbation was leſs ſevere, but cataplaſms of garlic were applied to the feet, early in the night, by way of prevention. The night was, on the whole, better than the preceding; he rambled, and, at times, was comatous; but he was, at intervals, more ſenſible, and did not loſe the uſe of his tongue. After midnight, he had two copious black ſtools, not very fetid, and two others of a bilious colour in the morning.

On the 6th, I found the ſkin moderately hot; and, the whiteneſs being gone, the tongue looked moiſter, and better: but the pulſe was ſunk, and extremely quick. He ſpoke with difficulty, owing to the ſwelling of the cheeks, and lips, but was tolerably compoſed, and entirely ſenſible. The bubo remained as before. The firſt carbuncle was now, like the reſt, black in the middle, and the eſchar-like cruſt, in all of them, remained dry, without any ſigns of ſuppuration. The circles round the eruptions on the face, were become of a darker red.

The puſtules on the ankle, had ſuffered no alteration ſince their eruption laſt night. Theſe were ſmall blains, about the ſize of a horſe bean, the ſkin round them being of a deep red, but not ſhining, nor ſo hard as uſual in carbuncles. They contained a fluid of a dark, yelloviſh colour, with which, not being filled, they appeared flat, or dimpled on the top. The

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puſtules on the face, differed from theſe in ſeveral reſpects. Thoſe were at firſt, red, hard tubercles, the cuticle on the top being ſhrivelled, and forming a yellowiſh cruſt; theſe appeared, at firſt, like veſicles, without any viſible hard tubercle, and, from their not burſting when touched with the finger, the cuticle ſeemed to be tougher. But from what happened next day, this difference was, perhaps, merely owing to local circumſtances, to the eruptions on the face being more expoſed to friction, and the cuticle being tenderer. I neglected to examine the puſtule on the thigh, but was aſſured it was exactly of the ſame kind. The puſtule which at firſt reſembled a ſmall-pock (and which I imagined to be what was termed at Marſeilles, Puſtule Charbonneuſe) was now grown black, and could not be diſtinguiſhed from the other carbuncles.

The patient appeared to be greatly weakened, by the ſtools; and, nauſeating the rice gruel, and panada, with which he had been hitherto nouriſhed, was permitted to have chicken broth. A cordial with ſome diaſcordium was alſo ordered, of which ſome ſpoonfuls were to be taken after every ſtool. Had a ſtool at two o'clock, and became much worſe.

The cataplaſms were applied at five in the afternoon, and lay on two hours. The diaphoretic mixture had been taken pretty regularly. The febrile ſymptoms, in the exacerbation, run not ſo high as uſual; but the inquietude increaſed, he was perpetually changing poſture, and made ſome feeble efforts to get out of bed. The carbuncle on the ankle became black, and the ſkin round all the eruptions, preſented broad livid circles. Deglutition was impeded by the ſwelling of the throat. In this ſtate he remained all night and ſeemed wholly inſenſible.

On the morning of the 7th, his ſtrength being exhauſted, he moved with leſs violence, but was not more compoſed: writhing inceſſantly, as if in mortal inquietude, he lingered till nine o'clock, and then expired. The livid circles round the carbuncles (as I was informed) became remarkably pale after death. The bubo never advanced.

This young man was conſtantly attended and nurſed, by his grandmother, one or two old women, a man, and an Armenian boy, all of whom eſcaped the infection: a circumſtance which, conſidering the unuſual number of eruptions, I thought the more remarkable.

CASE XVI.

A Jewiſh girl, eight or nine years old, of a delicate frame, and ſprightly diſpoſition, on the fourteenth of May, became feveriſh, and, at the ſame time,

time, a ſmall yellowiſh puſtule was obſerved on the cheek. The fever increaſing in the evening, ſhe paſſed a very reſtleſs night. Next morning ſhe appeared to be much better, and walked about till noon, when ſhe became heavy and feveriſh, paſſing a more unquiet night than the preceding, and was at times delirious. On the 3d ſhe remained tolerably compoſed from morning till noon, when a ſevere exacerbation came on, and in the night ſhe was worſe than ever. CHAP. I. 1761. May.

I ſaw her the 4th day, about noon. Her eyes were leſs altered than I expected; the tongue white and moiſt; the pulſe low, quick, and fluttering. The girl was in tears, occaſioned, as ſhe told me, by the pain ſhe ſuffered from the ſore on the cheek; for, though quite ſenſible, ſhe made no other complaint. Cloſe to the left corner of the mouth, was a carbuncle of a ſhape unuſually irregular, being oblong, near an inch in length, and not more than the third of an inch in breadth. The end, next the mouth, was covered with a black ſhrivelled cruſt, the other part was ſtill yellowiſh. The tumour was not much raiſed above the ſurface, but the ſkin round it was a good deal ſwelled, and of a dark, ſhining red. The maxillary glands, on both ſides were much ſwelled. Beſides this carbuncle, the face was ſtrangely diſfigured, by three or four ſtreaks of a pale red colour, ſhooting up on each ſide, from the cheeks toward the temples. Upon my aſking whether ſhe felt pain any where elſe, than the face, ſhe pointed firſt to the arm-pit, and then to the groin, on the left ſide, but I could diſcover no ſwelling there, nor did ſhe ſhrink upon touching the parts. I ſuſpected the women had ſearched her roughly, before I came, and by that means raiſed pain where there were no ſwellings; which I found afterwards had realy been the caſe. She had neither vomited at firſt, nor had ſhe now any nauſea; ſhe had had one ſtool yeſterday. No blood had been taken away, and it appeared, to me too late, as well as not requiſite, to bleed in her preſent ſituation.

The uſual regimen, and medicines were ordered, but ſhe ſeldom took the latter, an acidulated cordial excepted. I ſaw her not myſelf from this day till the 9th, but accounts were brought me daily, by thoſe who nurſed her.

She had been extremely reſtleſs in the night of the 4th, and, through the whole of the next day, hardly remained an hour together in the ſame ſtate, being by turns calm, reſtleſs, drowſy, delirious, and ſenſible. Had three bilious ſtools in the day, and two more in the night, which was not leſs reſtleſs than the night before.

On the 6th, ſhe remained in the ſame ſtate, and had two ſtools. I adviſed ſome rhubarb, but it was not given. The gangrene of the carbuncle

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ſpread, and the face and maxillary glands were more ſwelled. A bad night.

On the 7th, the gangrene of the cheek ſpreading, I would have given the bark, but ſhe could not be prevailed on to ſwallow any internal medicine. The ol. palmæ had been ordered for the carbuncle, and, thinking it gave her eaſe, ſhe often deſired the application to be renewed. She was unquiet, and delirious in the night, and had two ſtools.

On the 8th, ſhe was, as the aſſiſtants thought, much better, and continued more compoſed and ſenſible all day. She ſeveral times expreſſed wonder why her mother and relations had left her, and why I had not viſited her, as I had done in a former illneſs, of which ſhe reminded the aſſiſtants. In the evening, the exacerbation was ſeverer, and ſhe was ſo ill in the night that the nurſes gave her over.

Paſſing near the door, on the 9th, in the courſe of my viſits, I deſired to ſee her, and a male ſervant brought her out in his arms. She was totally inſenſible. The gangrene, extending towards the noſe, and the cheek, had now ſpread above three inches, where broadeſt, the ſkin, round the eſchar-like cruſt, was of a ſhining red, but the reſt of the face was pale. The eyelids were puffed up to ſuch a degree, that the eyes could hardly be diſcerned. The maxillary glands were much ſwelled, but the ſkin not inflamed. She had taken no medicine, except ſometimes a ſpoonful of an acidulated cordial; and ſhe took little or no ſuſtenance.

On the 10th, ſhe had had ſeveral ſtools ſince yeſterday, and diſcharged worms.—In the night ſhe was diſturbed as uſual, but inſtead of becoming more compoſed towards morning, ſhe grew worſe and worſe, and after ſtruggling ſeveral hours in the agonies of death, ſhe expired in the evening.

The family entertained ſome apprehenſions on the morning of the 4th day, but had flattered themſelves with the hopes of the diſeaſe not being the plague, till my firſt viſit, when I adviſed them to conſult their own ſafety. The family conſiſted, on the whole, of twelve or fourteen perſons, including four or five other children, moſt of whom had frequented the chamber, and communicated with the ſick girl, during the three firſt days. She had alſo been conſtantly nurſed by one woman, and two men, but all eſcaped the infection.

I regretted much, in a caſe where the ſtomach was ſo favourably diſpoſed, the not having tried the bark, and purgatives, which I certainly ſhould have done with a leſs untractable patient; and from the protraction of the diſeaſe, I was diſpoſed to think it one of thoſe caſes, wherein a more active treatment might have proved of ſervice.

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CASE XVII.

1761. May.

A ſtout, healthy Armenian youth, about twenty, cook to one of the Engliſh gentlemen, upon his return from purchaſing proviſions in the *bazar*, on the morning of the twenty-ſixth, was taken with a cold ſhivering fit, and a vomiting, which he aſcribed to the having ſlept uncovered in the night. The ſhivering was ſucceeded by a high fever, and intenſe head-ach, both which were mitigated by a large bleeding, from the arm. In the afternoon he walked to my houſe. His eyes were a little red, but not yet muddy; his countenance pale, and confuſed, the tongue dry, not white; the pulſe feveriſh, though not full: and the ſkin dry and hot. When firſt taken ill, he had vomited two or three times, and ſome degree of nauſea ſtill remained. I ſearched the groins, and the axillæ, but found no ſwellings. I ordered a ſcruple of ipecacuanha to be taken immediately, which, operating three or four times, brought off a good deal of bile. An anodyne was given after the operation of the vomit, but it did not compoſe him, and he was delirious moſt part of the night. Had one ſtool.

A perſon ſent early in the morning of the 2d, to ſee him, found him low, drowſy, and ſcarcely ſenſible. No eruptions were diſcovered on ſearching. In leſs than two hours after, I viſited him myſelf. The eyes were become muddy, and the countenance more confuſed than yeſterday; the tongue ſtill dry, but white; the pulſe low, and very quick; and the external heat leſs than the preceding night. He ſeemed half comatous, but was inceſſantly changing his poſture in bed. Though it required ſome time to rouſe him, he anſwered ſenſibly when interrogated. He found himſelf ill, and reſtleſs, but complained of no local pain. Ordering him to be uncovered, I ſearched for eruptions, and found a bubo in the left thigh, near the crural veſſels, the ſize of a hazel nut, deep ſeated, moveable, and when touched, painful. This tumour had eſcaped the perſon, ſent in the morning, who had ſearched higher in the groin. He had a ſevere exacerbation, in the evening, in which he vomited ſeveral times. Extremely unquiet in the night; was, at times, furiouſly delirious, and often attempted to get out of bed, but ſoon deſiſting, as if ſpent by the exertion, threw himſelf down again, in deſpondence, and muttered unintelligibly.

The morning of the 3d, he was much better in appearance, though he had not ſweated. He had, in a great meaſure, recovered his ſenſes, and complained of oppreſſion about the præcordia; his thirſt was conſiderable, though the fever was moderate. The urine was high coloured. The bubo had decreaſed in ſize; and an eryſipelatous redneſs ſtruck out on the belly.

CHAP. I.

Word was brought me in the evening, that this redneſs had gone off, and the bubo was ſcarcely perceptible; he ſeemed ſtrangely reſtleſs; complained of burning heat, internally, and unquenchable thirſt. He raved moſt part of the night, and had ſeveral looſe ſtools. He had taken none of the medicines ordered, except the acidulated cordial, and I learned afterwards, that the women conceiving him paſt recovery, had indulged him in eating a quantity of cherries, and afterwards permitted him to drink freely of iced water.

1761. May.

On the morning of the 4th, he lay ſpeechleſs, and inſenſible; inquietude inceſſant; and the body, in ſeveral places, ſtreaked with *vibices*. The bubo was ſomewhat larger. Such was the report brought me. He expired about noon.

In ſeveral of the preceding caſes, I have had occaſion to mention the remarkable eſcape of the attendants, and others of the family, who were much about the infected; in the preſent caſe, the ſpread of the infection was uncommon, only one perſon of ſix who dwelt in the ſame houſe, eſcaping an attack.

I. The firſt who fell ſick, in this family, was a girl about ſeven years old. She was ſeized the third of June, the fifth day after the death of the cook. The eruptions were a large carbuncle, on the right ſide, and a bubo in the right axilla. She was neither bled, nor, except the acidulated cordial, took any medicine. The bubo increaſed to an uncommon ſize, and opened about the 20th of the month, after which ſhe recovered ſlowly.

This girl was infected a ſecond time, in the month of October, and died.

June. II. The next was a girl of ſeventeen, who was taken ill on the ſixth, a bubo appearing in the right axilla. She was bled, and circumſtances appeared favourable the two following days. In the evening of the 4th day ſhe grew worſe, had an hemorrhage from the noſe, and died, next day in the afternoon, being the tenth of June.

When I firſt viſited the cook, on the twenty-ſeventh of May, I found this blooming girl ſitting cloſe by the bed-ſide, and employed at her needle work, without any ſuſpicion of the danger of her ſituation. I attempted, in vain, to make her quit the chamber, and, I believe, it was not till next day ſhe was prevailed on to deſiſt from attending the patient.

III. The brother of the laſt girl, a lad of fifteen, was taken ill the eighth. A bubo was protruded next day, which he concealed for three or four days,

when he began to be better. The bubo opened about the 20th day, and he recovered favourably. He had been bled once, but took no medicine. CHAP. I.

IV. In the chamber immediately adjoining to that where the cook ſlept, lay a young woman, recovering from child-bed. She found herſelf indiſpoſed on the ſixth of June, but did not complain till next day. She had a bubo in the groin, and a carbuncle on the ankle. She died the 6th day; and the child the day following; but I do not know whether the child had any external marks of the plague. 1761. June.

V. The laſt perſon infected, was the mother of the above woman. She was taken with a ſhivering, a fever, and a vomiting, on the thirteenth of June, after having been employed all day in waſhing linen. Next day a ſmall bubo appeared in the left groin, and a carbuncle on the left leg. She had retched ſeveral times, and ſtill complained of nauſea. A vomit was ordered and an anodyne draught. The vomit had no effect, and, though the draught was given, ſhe paſſed a very unquiet night. By the accounts brought me, on the 3d, ſhe was very ill all day. The bubo had increaſed in ſize, and was more painful. The evening exacerbation was very ſevere, and, in the night ſhe grew worſe. On the 4th, ſhe remained moſt part of the day in a ſtate of inſenſibility. Had one ſtool. At night ſhe became more unquiet, and expired next morning. This woman had taken the diaphoretic medicines two or three times a day, as alſo of the acidulated cordial, frequently.

The mother of the girl and boy (II, III) was the only inhabitant of the houſe, that eſcaped the infection,

CASE XVIII.

An Armenian woman, in the ſeventh month of her firſt pregnancy, was taken ill in the morning of the thirteenth of June. The mother-in-law had died of the plague two days before, and her huſband, who then lay ſick, died on the fifteenth. By the accounts I received of this woman, on the 1ſt day, ſhe had been ſeized with the uſual peſtilential ſymptoms, in the morning, and was bled in the forenoon. The vomiting, which had been ſlight, had now ceaſed, and ſhe had no remaining nauſea. Diaphoretic boluſes, and the uſual cordial were ordered. She was feveriſh, and reſtleſs in the night. On the 2d, ſhe complained of pain in her back, and weight in her belly: as likewiſe of pain in the right thigh, but no bubo was found upon ſearching. Had two ſtools. She took two boluſes in the courſe of the day, and a hauſtus of ſpirit. mindereri at night. Paſſed a very unquiet night, and did not ſweat towards

CHAP. I.

towards morning.——On the 3d, ſhe was delivered of a dead child. She took willingly of the acidulated cordial, but refuſed all other medicine.

1761. June. Word was brought me in the evening that ſhe found herſelf much better, and indeed, to the people about her, ſhe appeared to be ſo: but the calm was deceitful, and of ſhort duration; for ſhe grew rapidly worſe in the night, and early next morning expired.

Her body, after death, was covered with purple marks.

CASE XIX.

A boy, the brother of the woman's huſband (Caſe XVIII.) was ſeized on the nineteenth, a bubo appearing immediately in the right groin. He was bled, and took the alexipharmic mixture. He had not vomited, and had no nauſea.—On the 2d, a diarrhea coming on, diaſcordium was added to the mixture, but without effect; for the looſeneſs continued, and he became very hot and reſtleſs, particularly in the night.—The morning of the 3d, inſtead of any remiſſion, he lay in a ſtate, almoſt, of inſenſibility. The diarrhea being in no degree reſtrained by the diaſcordium, continued. The bubo remained as before. When aſked, at intervals, if he felt pain, he ſaid he did not; nor did he make any complaint, though he appeared to be very reſtleſs. He died in the night.

The only perſon in the houſe, where this boy and the pregnant woman died, who eſcaped the infection, was an old man, the father of the boy. His wife, and an elder ſon, had periſhed before. The wife was taken the eleventh of June, and died the night of the twelfth. The ſon was taken the twelfth, had an inceſſant vomiting, and a carbuncle on the hip, which gangrened rapidly, and had ſpread to a conſiderable breadth, in the ſpace of three days. He died on the 3d day in the afternoon.

CASE XX.

July. A Jew, a middle aged man, and of a groſs habit of body, obſerved a ſmall, angry puſtule, on his right arm, on the twenty-ſeventh of July, and, in the night, found himſelf hot and reſtleſs. Next day he was bled, and a hard, painful bubo appeared in the right thigh; he vomited, had ſeveral looſe ſtools, and paſſed the night more unquietly than the night before.—On the 3d and 4th he was irregularly better and worſe; now tolerably calm and ſenſible, now unquiet, and delirious, and ſome times heavy, and lethargic. He was always much diſturbed in the nights. He had taken no medicine after the bleeding.

I received

I received the above account on the 5th day, when he ſent to entreat my aſſiſtance. He was then ſenſible, and complained of oppreſſion at the heart, of the pain of the eruptions, and of inquietude, which he could not deſcribe; but at other times he lay as if in a ſtate of ſluggiſh inſenſibility; he had ſeldom been delirious. Yeſterday petechiae had been obſerved on ſeveral parts of the body, and ſtill remained. Diaphoretic powders, and ſinapiſms were ordered, though with very little expectation of ſucceſs. He paſſed the night in perpetual inquietude. CHAP. I. 1761. July.

Accounts were brought me on the 6th, that not having grown better, as uſual towards morning, he now lay in a ſtare of inſenſibility, his breathing laborious, the extremities cold, and the whole body covered with a cold, clammy ſweat. The petechiae were become of a livid colour. He expired in the afternoon.

The following caſe, though one of thoſe where I did not ſee the patient myſelf, I have tranſcribed from my journals, at length; having daily received accounts, uncommonly diſtinct, by means of the patient's ſiſter, who nurſed him the whole time with remarkable reſolution and tenderneſs, and, though in the bloom of life, happily eſcaped the infection.

CASE XXI.

A Chriſtian youth, about ſeventeen, was taken ſuddenly with a vomiting, head ach, and fever, on the twenty-eighth of July; and, in the evening, complained of pain in the right groin, but the perſon who ſearched him could diſcover no ſwelling there. Was reſtleſs, but not delirious, in the night.

The forenoon of the 2d, he was feveriſh, and very unquiet, though he had been bled copiouſly in the morning. A cataplaſm was directed to be applied to the groin, where no ſwelling was yet perceptible, though he perſiſted in complaining of pain. In the evening he took fifteen grains of ipecacuanha, which operated three times, and at night a diaphoretic draught, with a little nitre, and diaſcordium. He paſſed a leſs unquiet night than the preceding, and had one ſtool.

On the 3d, he did not ſweat towards morning, and, though he became ſomewhat calmer, the fever continued high, accompanied with thirſt, and head-ach. The bubo was now very perceptible, being about the ſize of an olive, and ſeated near the crural veſſels. I ſuſpected, from the conſtancy of the pain, that a hand more experienced in ſearching, might have diſcovered the incipient tumor, on the 2d, if not on the 1ſt day. A diaphoretic

CHAP. I.

mixture, with ſpirit. nitr. d. and a ſmall proportion of nitre, was ordered; and his drinks directed to be acidulated. In the night he was very unquiet, the fever run high, and, at times, he was ſlightly delirious. Had one ſtool.

1761. July.

He was, on the morning of the 4th, more compoſed than he had been in the night, but ſtill highly feveriſh, and the urine was of a deep red colour. The bubo was a little increaſed. He had two ſtools of a reddiſh colour like blood, in the afternoon, after which he became in all reſpects much worſe. A carbuncle was diſcovered on the lower part of the right thigh. A larger proportion of nitre had been added to the medicines this day; but the febrile ſymptoms running high in the evening exacerbation, his ſiſter of herſelf, procured a perſon to cup the patient, and took away three cupfuls of blood; a circumſtance ſhe concealed till long after, from a notion that I ſhould have diſapproved of taking away blood in that ſtate of the eruptions, and ſo late in the diſeaſe. The night proved an unhappy one to both patient and nurſe. He was more diſturbed, and ſeemingly worſe than ever; and ſhe was alarmed for the conſequence of the ſtep ſhe had unadviſedly taken. He had two looſe ſtools, which appeared to lower him. Towards morning he ſhowed ſome diſpoſition to ſweat, but could not be prevented from throwing off the bed-clothes.

On the 5th, he was rather more compoſed, but croſs and impatient, inſiſting on being indulged in ſome very improper food. The nitre was omitted, and an aſtringent cordial ordered, in caſe of looſe ſtools in the night. He ſuffered ſeveral irregular exacerbations through the day, and was extremely ill in the night. The diaphoretic medicines were given regularly, but, though he had three looſe ſtools which ſunk him greatly, they omitted the aſtringent mixture, from the dread, as pretended, of overloading the ſtomach with medicine, but in reality becauſe the looſeneſs, joined to the other ſymptoms, led them to conſider the condition of the patient as deſperate; in which caſe, it is invariably their cuſtom to leave the whole to nature. His ſiſter, however, remembering my injunctions not to be diſcouraged by appearances, inſiſted on giving the other medicines, in oppoſition to the reſt of the women; and, what was equally uncommon, candidly confeſſed not having followed directions.

Auguſt.

By the report of his ſituation on the morning of the 6th, there ſeemed to be little hopes of recovery. He lay motionleſs, in a ſtate of inſenſibility; his breathing quick, laborious, and interrupted; the ſkin not cold, but the feveriſh heat gone, and his countenance ghaſtly. From this lethargic ſtate, the women attempted to rouſe him, by applying vinegar to his noſtrils, calling him loudly by his name, and ſuch like means, and ſometimes ſucceeded; but,

but, though he opened his eyes, and gave ſigns of ſenſe, he could not be prevailed on to drink; and he remained ſilent. He would then for ſome time writhe and contort his limbs, as if in mortal agony, and again relapſe into lethargy. The eruptions remained as yeſterday. Sinapiſms were ordered to his feet, but not applied, as he became more alert and ſenſible in the noon exacerbation, and remained ſo, though very unquiet, the reſt of the evening. He was leſs diſturbed than uſual in the night, and had no occaſion for the aſtringent cordial. CHAP. I. 1761. Auguſt.

He was manifeſtly better on the 7th. The carbuncle gave ſigns of ſuppurating, and the bubo, which hitherto had been hard, began to ſoften. A reddiſh ſtreak was obſerved running from the bubo to the carbuncle. The looſeneſs continuing all day, in a moderate degree, but attended with gripes, the white decoction was ſubſtituted for the cordial, and tincture of bark ordered to be taken thrice in the twenty-four hours. The exacerbations this day, and in the night, were not near ſo ſevere as uſual.

He continued better all day on the 8th, and the bubo, though not yet inflamed externally, was more protuberant. Had one ſtool only. In the night he was more reſtleſs, and feveriſh, than the night before.

On the 9th, he continued unquiet all day. The carbuncle diſcharged copiouſly, but the bubo ſeemed rather to have receded, than advanced. Had two ſtools. His head becoming a good deal affected in this night's exacerbation, cataplaſms of garlic were applied to the feet, by which he ſeemed ſenſibly relieved.

On the 10th, the fever was moderate all day, and the night exacerbation very ſlight. The carbuncle continued to diſcharge, but the bubo, though painful, advanced very ſlowly, and the ſkin remained uninflamed.

The 12th, there had been no material alteration for theſe two days. The tincture of bark, which had been taken regularly ſince the 3d, was omitted this day. He complained of gripes, and had one or two looſe ſtools.

The 13th, the griping pains continuing, he took a rhubarb bolus this morning, which operated two or three times. An anodyne was given at night; but the gripes continued all next day.

The 15th, The ordinary purging potion, which ſhould have been given ſome days before, was taken this morning, and operated three times; by which the complaint of the bowels was removed.

The 16th, the fever, which had been very inconſiderable theſe two days, diſappeared entirely; after which the bubo gradually advanced to maturation, and opened of itſelf in about ten days.

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1761. Auguſt.

The 26th. For theſe laſt ten days the patient has made little or no complaint, except of the pain of the bubo, and ſometimes a ſlight ſymptomatic fever at night. The carbuncle, after it once ſuppurated, gave little pain. The purging potion was repeated twice in this interval, and the bark was continued for ſeveral days.

A large quantity of matter was diſcharged from the bubo, when it firſt opened, and both it and the carbuncle continued to diſcharge for a fortnight. The ulcers did not heal till towards the end of September.

The preſent caſe affords an inſtance of blood being taken away ſo late as the 4th day, which was later than I uſually adviſed it; and had my advice been aſked, I ſhould probably have given it againſt cupping. I did not however aſcribe the ſucceeding bad night to that operation; the inquietude being a common circumſtance at that ſtage of the diſeaſe, in caſes where no evacuation had been made whatever. A leſs plethoric patient might have perhaps ſuffered more by the loſs of blood.

This patient ſweated much leſs than thoſe who recovered uſually did.

CASE XXII.

Sept.

A Chriſtian boy, about ſeventeen years old, was taken ill on the fifth of September. He was bled the day following; and, as his doctor informed me, took ſome abſorbent powders.

I ſaw him on the 4th, about noon. The eyes were muddy; the face flushed; the pulſe ſmall and extremely quick; the external heat intenſe; the tongue dry, but retaining its natural colour. He had remained ſpeechleſs ſince laſt night, and made me no anſwer when aſked if he felt any pain; yet he ſeemed to underſtand what was ſaid, for immediately, at my requeſt, he ſhowed me his tongue.

The mother, with ſeveral other females in the chamber, aſſured me he had no external marks of the plague; I inſiſted, however, on examining him, and diſcovered a very painful, hard bubo, in the right groin. Two of the axillary glands, of the ſame ſide, were alſo ſwelled, and painful; but they were ſeated higher in the axilla than any of the peſtilential buboes I had obſerved before. The ſkin, externally, of theſe tumours was not inflamed, but the boy wept, and ſhrunk when they were touched.

The family had till now been flattered with the hopes of the diſorder being an ordinary fever, and when undeceived, would hear of no other remedy

medy than bezoar, which they themſelves adminiſtered, as uſual, in a trifling doſe. The boy died next day. CHAP. I.

CASE XXIII.

1761. Sept.

An Italian, a man about forty, of a groſs habit of body, and addicted to drinking, complained on the twenty-ſeventh of September, of head-ach, and giddineſs; but ſaid he had found himſelf rather unwell for two or three days before, on which account, he had lived temperately.

On the 2d day I found his pulſe extremely low, but it indicated no fever, and the heat of the ſkin was natural. He appeared confuſed and unwell, without any ſpecific complaints, except the head-ach, and giddineſs. A diaphoretic mixture was ordered, and he paſſed a tolerably quiet night.

On the 3d, his former complaints ſtill continued; but he thought himſelf rather better. The tongue retained its natural colour, and the eyes were not altered; but the pulſe was more ſunk, and the hands and feet cold, without diſcoloration of the nails. Suſpecting that a hot paroxyſm might come on in the afternoon, he was ordered, in caſe of the fever running high, to loſe ſix ounces of blood; and a laxative potion was directed to be taken in the morning. No paroxſym, however, came on, and there was no occaſion for the bleeding. He ſlept little in the night, but lay quiet.

On the morning of the 4th, I found him much in the ſame ſtate as yeſterday. The laxative did not operate till afternoon, and then only twice. The diaphoretic medicines (made a little warmer by the addition of ſerpentary) were continued. In the evening, he appeared to the women to be feveriſh; and he was reſtleſs in the night. Had two more ſtools.

On the morning of the 5th, appearances remained nearly the ſame, but the pulſe was quicker, and more ſunk; the ſkin of the hands and arms was cold: and though, at firſt, he ſaid he found himſelf better, it appeared upon queſtioning him, that he was more thirſty than before, and ſenſible of internal heat.

The anomalous ſymptoms in this caſe, conſidering that the plague exiſted in the place, appeared to me, from my ſecond viſit, highly ſuſpicious, and I had accordingly cautioned the family. This day, I enquired of the patient, as far as could be done without alarming him, if he was ſenſible of pain any where elſe than in the head, and was aſſured that he was not. Towards evening, he became worſe, drank more, and paſſed a more unquiet night than ever; but his attendants could not perceive any conſiderable increaſe

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1761. October.

creaſe of heat, or fever. Towards morning, for the firſt time, he retched ſeveral times, but without bringing up any thing from the ſtomach.

Early on the morning of the 6th, I found circumſtances in the ſame ſtate as before; the ſkin ſtill rather cold. He perſiſted in ſaying that he felt no pain, except in the head; but complained of general inquietude. The retching he had ſuffered in the morning, furniſhing a pretence for examining the præcordia, I took the opportunity of examining, alſo, the inguina and axillæ, but could diſcover no ſwellings. Upon preſſure at the ſcrobiculum cordis, he complained of pain: a circumſtance unuſual in the plague, though not uncommon in the epidemic fever, at that time prevalent in the city.

About eight o'clock, he took ten grains of ipecacuanha, which operated five or ſix times upwards, and two or three times downwards, bringing off, both ways, a conſiderable quantity of bile. This diſcharge did not, however, appear to relieve him. At one o'clock his extremities became cold, in which ſtate they continued in the evening, when word was brought me that he remained, in other reſpects, as I had ſeen him in the morning. In the night, he was very thirſty and reſtleſs, and had two fetid ſtools. Beſides the diaphoretic medicine, he took, at times, of a cordial with the volatiles.

The morning of the 7th, he ſeemed to retain his ſenſes perfectly, and when aſked how he found himſelf, ſaid he felt no material alteration ſince yeſterday. His pulſe, nevertheleſs, was extremely ſunk, and his extremities had remained cold as ice for the laſt twenty hours. Though he did not complain of oppreſſion about the præcordia, the attendants judging from appearances, that he ſuffered it, gave him frequently of the cordial. What ſurpriſed me moſt, was to find ſo little alteration in his eyes, and countenance. I viſited him again at noon, on purpoſe to ſearch for eruptions, but none were diſcovered, though I carefully examined the parts. His pulſe, and looks remained as in the morning. The legs, thighs, arms, and back, were quite cold: the breaſt and belly retained ſome heat. Theſe cold parts were ſenſible when touched, and the patient was ignorant of their having loſt their warmth. The ſkin on the right knee was a little livid.

The women had remarked, in the night, that the noſe, and the breaſt became cold like the other parts, but recovered their natural heat, towards morning: and the right leg alſo, for a ſhort while, recovered its heat; while the thigh continued cold. Panada with wine was ſubſtituted as diet, inſtead of chicken-broth; the cordial was continued, and ſinapiſms were applied to the feet. In the night, he was very unquiet; rambled ſometimes, but continued for the moſt part ſenſible. Had one or two ſtools; and complained

plained of a ſlight nauſea, but did not vomit. One of the legs recovered ſome warmth, but ſoon loſt it again. CHAP. I.

I found him, on the 8th, in the following ſituation, at eight in the morning. The eyes were become muddy; the pulſe more ſunk than ever, but not quicker. The tongue unaltered in colour, and moiſt. The urine, as from the beginning, of a healthy appearance. The ſkin univerſally cold, and clammy; the livid ſpot on the right knee ſpread; and the ſkin, on ſeveral parts of both legs, beginning to grow livid. The reſpiration not diſturbed; and he talked ſenſibly, though he faltered in his ſpeech. The pain of the head, he ſaid, was leſs, but a weight, and confuſion remained. He complained of a pain on the right ſide of the noſe, but neither ſwelling or inflamation were diſcernible. The ſinapiſms and a cordial were ordered for form's ſake. He expired about four in the afternoon. 1761. October.

It was aſſerted by the perſon who waſhed the corpſe, that there was a ſmall bubo in one axilla. This, if true, muſt have been protruded after I ſearched him on the 7th.

I did not think eruptions were requiſite, in this caſe, to determine the nature of the diſeaſe. At the ſame time, ſeveral ſymptoms were abſent which uſually attended the plague. The muddy appearance of the eyes came on very late; the inquietude was not in ſo great a degree, as it is uſually when the pulſe is ſo low, and the ſurface of the body becomes cold: the patient, moreover, remained more conſtantly in the ſame ſtate, without thoſe ſudden tranſitions which ſo commonly attend peſtilential caſes. The pain he felt when the præcordia were preſſed, was a common ſymptom in the epidemic fever which, at that time, was prevalent in the city; the ſurface of the body, often alſo in that fever, continued long cold: but the ſick were more or leſs relieved by diſcharges of bile; the febrile exacerbations were more manifeſt; the ſenſes more diſturbed; and none periſhed in the manner of the patient in the preſent caſe.

CASE XXIV.

A Chriſtian merchant, whom I had often attended on former occaſions, a man about fifty, of an atrabilious habit, and ſubject to the hœmorrhoids, was in the evening of the twentieth of October, taken with a ſlight ſhivering fit, ſucceeded by head-ach, violent febrile heat, and great anxiety about the præcordia. In this ſtate he continued all night, drinking immoderately of cold water, which remained on his ſtomach. He had no nauſea, nor

diſpoſition

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diſpoſition to vomit. Towards morning the fever abated, and he had a ſtool.

I ſaw him the 2d day, about eleven in the forenoon. His eyes were muddy, and his countenance moſt remarkably altered; the pulſe was low and intermittent. The tongue was not altered; and the heat of the ſkin moderate. His chief complaints were oppreſſion at the heart, and weight or confuſion, not pain, in the head. He replied ſenſibly to my queſtions, but appeared to be much dejected, and often eyeing his family who ſtood around him, was unuſually reſerved, and ſilent. When ſupported by cuſhions, as he ſat up in bed, he remained motionleſs, but when left to himſelf, he reclined, varying perpetually his poſture, as if in queſt of eaſe. Whilſt I ſat by the bed, he aroſe, and, without aſſiſtance, croſſed a large court-yard, to the neceſſary, without much alteration in his pulſe from the exertion.

The preceding day, having left his houſe early in the morning, he had taken little or no nouriſhment, and in the night had taſted nothing but water. He was now prevailed on to take a little chicken broth, before the expected exacerbation ſhould come on; and was ordered to be bled in the hot fit, unleſs the early breaking out of a ſweat ſhould prevent that operation.

About three in the afternoon, being then conſiderably more feveriſh, ten ounces of blood were taken from the arm; but the ſurgeon who bled him, informing me that the pulſe had riſen upon the bleeding, I ordered ſix ounces more to be taken away, which was done accordingly, after ſun ſet. The diaphoretic mixture, with ſpirit. vitriol. was ordered for the night. Early in the night he became comatous, and loſt the power of ſpeech. A ſurgeon in the neighbourhood, who was called in about three in the morning, adviſed cupping, and took away about three ounces of blood. Nearly the ſame quantity was loſt by the accidental looſening of the bandage of the arm, two hours after, ſo that he loſt, in all, about twenty-four ounces of blood.

On the 3d, his eyes were muddy, fixed, and tinged of a deep yellow; the face cadaverous; the pulſe ſmall, and exceedingly quick; the tongue dry, but the external heat was temperate, and his breathing equal, and regular. He had no ſubſultus tendinum; the mouth was not diſtorted, nor were any of the limbs paralytick, for he was perpetually writhing them, and changing poſture. He had loſt the power of ſpeech, but not entirely that of hearing; for he ſeemed ſenſible when the attendants ſpoke loud to him.

The body being uncovered, I examined the inguina and axillæ, but could diſcover no tumours. The marks of the cupping glaſſes were remarkably

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ably livid. After the cupping in the night, they had adminiſtered a few drops of the Carmelite water, ſoon after which he vomited a little phlegm. Sinapiſms were applied to the feet, and the diaphoretic mixture ordered to be given every two hours. A ſuppoſitory (being the only mode admitted) was recommended to procure a ſtool, in order to relieve the bowels from flatulencies, which were indicated by frequent *borborygmi*, but this was rendered unneceſſary by a natural ſtool.

I had already communicated my opinion of the diſtemper to the family, and recommended precautions for their own preſervation; but the abſence of eruptions diſpoſed them more readily to truſt aſſurances, which they received from a practitioner of phyſic, that the diſorder was not peſtilential, but a kind, as he termed it, of lethargic coma; and that much was to be expected from a repetition of the Carmelite water, and a bliſter applied to the back. I objected to the giving the ardent ſpirit, but conſented to the bliſter, informing the relations, however, that I conſidered the patient's ſituation to be deſperate.

I ſaw him a ſecond time about two in the afternoon. The pulſe was more raiſed, and he appeared to be leſs comatous; the mixture had been given regularly, and the attendants imagined ſeveral times that there were appearances of an approaching ſweat. He had made ſeveral attempts to tear off the ſinapiſms, a mark of ſenſation that heightened the hopes entertained from the bliſters. But amidſt theſe circumſtances, which flattered his family, there were others from which I drew different concluſions. His countenance to me ſeemed more ghaſtly, one of his arms felt cold and clammy, and the conſtant inquietude ſeemed approaching to mortal agonies.

In conſideration of the perſon who was to apply the bliſter to the back, (which, from the manner of ſleeping in night-clothes, is not only attended with trouble, but with more riſk of infection) I had adviſed bliſters to be applied to the legs, and the aſſiſtants were then employed in applying them. The patient grew worſe as night approached, and expired between ten and eleven o'clock.

This merchant's warehouſe was ſituated in the Vizier's khane, where a Perſian merchant happened to lodge, with whom he had concerns in buſineſs, and who being ſeized with the plague on the nineteenth of October, died the twenty-firſt. From this perſon it probably was that he had caught the infection; for not ſuſpecting the diſorder, he had ſeveral times been in the ſick chamber, which was, as uſual in khanes, ſmall and confined.

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None of the family, nor any of two or three other attendants, were afterward infected.

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The two foregoing caſes, I conſidered as peſtilential, though not accompanied with eruptions. The following caſe was not peſtilential; but I have given it a place here, as an example of many of the ſame kind, during the whole of the peſtilential ſeaſon, and which not only occaſioned much confuſion in families, where they happened, but a good deal perplexed the medical aſſiſtants, of whom it was expected that they ſhould decide peremptorily on the nature of the diſeaſe.

CASE XXV.

The ſon of an honorary interpreter, a youth of a delicate plethoric habit, upon riſing from bed, on the twenty-ſeventh, was ſeized with a giddineſs, but, conceiving that it would ſoon go off, made no complaint, and ſet out from his houſe in the Chriſtian ſuburb, (the Judeda) to open his father's warehouſe in the Vizier's khane, in the city. Soon after his arrival in the khane, finding himſelf worſe, he determined to return home, and before he had got half way, the giddineſs increaſed to ſuch a degree as rendered him incapable of getting further without aſſiſtance. As ſoon as he got to bed, he became extremely unquiet, writhed his legs and arms as if in pain, but made no other complaint than that he found himſelf extremely ill. In half an hour he loſt the uſe of his tongue, and his hands and feet became cold; but what was remarkable, his face, naturally ruddy, retained its uſual bloom, though he ſeemed hardly ſenſible, as if in a fainting fit. The women had recourſe to the uſual application of vinegar to the noſe and temples, which appeared to revive him a little, but he ſtill remained ſpeechleſs.

I ſaw him at one o'clock, and found him lying compoſedly in bed as if aſleep; his countenance unaltered, and his reſpiration undiſturbed. The pulſe was low, ſomewhat quicker than uſual, and perfectly equal. The extremities ſtill continued cold. He had, by this time, partly recovered his ſpeech, but was only able to give an indiſtinct account of himſelf, further than that he was unwell, and his head ſo giddy upon ſitting up, that he could not bear to have it raiſed from the pillow. Upon enquiry if he felt head-ach, or pain about the pit of the ſtomach, he ſaid he did, but made ſlight of theſe complaints, compared to the giddineſs, and to illneſs which he could not deſcribe. Amidſt all this, he ſaid he felt appetite for food. The tongue was moiſt, and not diſcoloured, which it uſually is, in ſome degree, when bile is lodged

lodged in the ſtomach. I ordered however ſome warm water to be given to excite vomiting, which failed in that effect, but ſeemed to be of ſervice as a diluent, for he found himſelf better after it. I then ſearched the ſuſpicious parts without diſcovering any tumors, except one ſmall, hard, moveable gland in the right axilla. This upon preſſure appeared perfectly indolent, and indeed was ſo ſmall, that, joined to its not being painful, I could not declare it an incipient bubo. The other ſymptoms were however ſuſpicious, more eſpecially as the plague then actually exiſted in the Vizier's khane, as well as in many other parts of the city. I therefore ſuſpended my opinion, but recommended precaution to the family.

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I adviſed his being bled as ſoon as the extremities ſhould become warm, and that vomiting ſhould be encouraged, if he ſhowed any diſpoſition to it. About four in the afternoon, I was informed that he had had one ſtool; that his extremities had recovered ſome warmth; and that he ſeemed ſtrangely averſe to ſpeaking, but anſwered diſtinctly when ſpoken to. A diaphoretic cordial was ordered, and eight ounces of blood directed to be taken from the arm, after the firſt or ſecond doſe. He took the mixture regularly, and before night his extremities had recovered their natural heat; but finding himſelf much better, and not feveriſh, the bleeding was deferred till I ſhould ſee him next day. He paſſed the night quietly.

I found him on the morning of the 2d perfectly calm; the pulſe natural, and the external heat temperate; but the tongue was a little yellowiſh, and he complained of bitteriſh taſte in the mouth, and dryneſs of the lips. A purge was ordered to be taken early next morning, and that he ſhould in the mean while drink plentifully of a diluent ptiſan, as uſually practiſed in that country, by way of preparation before a purgative. In the evening he felt himſelf a little feveriſh, but paſſed a good night.

On the 3d, he was very well. The purging potion operated two or three times. The ſwelled gland remained as before, and poſſibly might have been long in the ſame ſtate.

On the 4th, being quite well, he went abroad about his uſual affairs.

At another time, a caſe of this kind would have at once been aſcribed to bile, and have occaſioned little alarm; but in the peſtilential ſeaſon, anomalous ſymptoms always cauſed ſuſpicion.

The ſymptoms commonly in that country aſcribed to bile (and perhaps often with juſtice) are frequently of a ſtrange anomalous kind; but I was ſometimes inclined to think, that during the peſtilential ſeaſon, allow-

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ance alſo was to be made to the power of imagination, and to impreſſions made on the mind. The death of the Perſian merchant, on the twenty-firſt of the month (Caſe XXIV) and of the Chriſtian merchant the day after, were well known to this youth; nor was he ignorant that others of his neighbours in the Vizier's khane were ſuppoſed to be infected. Finding himſelf taken ſuddenly with a ſymptom reputed common in the plague, he might naturally be alarmed, though unwilling at the ſame time to own his apprehenſions: and partly to this cauſe I aſcribed his ſilence and reſerve, after he certainly had recovered the uſe of his tongue.

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CASE XXVI.

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An Armenian youth, who lodged in Hadjee Muſa's khane, was taken ill on the twelfth, and bled next day. A vomiting and exceſſive thirſt were conſtant ſymptoms from the firſt.

I found him on the morning of the 3d in a ſmall confined chamber, lying as if aſleep, but he was eaſily rouſed, and appeared to be perfectly ſenſible. The pulſe was full, hard, and moderately quick, the tongue white, the face flushed, but the eyes not altered. He complained of head-ach, and oppreſſion at the heart; but moſt of all of the vomiting. I was aſſured, by thoſe who ſearched him, that there were no eruptions. He was ordered to loſe eight ounces of blood, and to take a ſaline draught every four or five hours.

On the 5th, there was little alteration ſince the 3d, only that the vomiting was leſs frequent. The pulv. contrayerv. edin. was added to the ſaline mixture. The exacerbations were ſevere in the night, but declined towards morning.

I had no opportunity of ſeeing this patient a ſecond time till the morning of the 6th. They had removed him, at my requeſt, into a more airy chamber. The pulſe was calm, nearly in a natural ſtate; but the eyes and countenance had acquired the peſtilential look, which confirmed the ſuſpicion I had entertained from the firſt. I cauſed the youth therefore to be raiſed up in bed, and ſilencing thoſe about him, who were officiouſly aſſuring me that it was in vain to look for any plague ſores, I aſked him whether he had not been ſenſible of pain in ſome other part beſides the head. To this he replied by pointing to the right axilla, adding, that he had ſuffered pain there ever ſince the morning of the preceding day. Upon uncovering the axilla, I found a bubo the ſize of a large hazel nut, hard, and not inflamed externally. A plaſter was ordered for the bubo, and the former mixture was continued.

I was

I was informed on the 7th, that he found himſelf better, and that the vomiting had ceaſed. Huxham's tincture was ordered inſtead of the former mixture. The bubo had increaſed in ſize, and was more painful. CHAP. I. 1762. March.

From the accounts I received on the 8th, the pain of the bubo appeared to be the chief complaint. But I ſuſpected he was very ill attended, from the time the bubo was diſcovered, and my accounts of him after that time, were indiſtinct. The tincture was ordered to be continued, but his attendants, finding him grow worſe, did not adminiſter it. He died the 9th day.

I much regretted the not having it in my power to attend this patient more cloſely, as I had formed hopes of the caſe, from ſome appearances on the 3d, particularly from the pulſe, and the unaltered ſtate of the eyes. The continuance of the vomiting was indeed a bad ſymptom; and though it ceaſed at length, it was not till after the eyes had acquired the characteriſtic muddineſs. I ſuſpected the patient concealed the pain in the axilla, from an apprehenſion (which in the ſequel proved juſt) of being deſerted when known to have the plague.

CASE XXVII.

A young lady of French extraction, of a thin, ſlender make, found herſelf indiſpoſed on the twenty-eighth, but conceived it to be nothing more than an accidental cold.

She called at my houſe the morning of the 2d day, on her way from church. She was a little feveriſh, and complained only of a ſtiffneſs of her neck. Upon examination, I found one or two of the cervical glands ſwelled, and on the anterior part of the neck an eruption about the ſize of a large pea, partly yellowiſh, ſhrivelled a little on the top, and the ſkin round it ſlightly inflamed: ſhe had beſides a hard painful tubercle on the crown of the head, which I could not well examine on account of the hair.

I conceived at firſt, the eruption on the neck to be a carbuncle, but was told that ſhe was ſubject, in the ſpring, to eruptions of that kind, and had actually now ſeveral others, though ſmaller, on the back. I told her the matter, in that caſe, was of no conſequence, but deſired ſhe might let me know how ſhe did in the evening, and I would order ſome cooling phyſic, for next day. In place of ſending, ſhe returned herſelf in the evening. She was now more feveriſh, and complained of an oppreſſion about the præcordia. When queſtioned about the eruptions, ſhe made light of them, declaring they gave her no pain; a circumſtance I did not credit, and which, joined to a

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certain confuſion of countenance, convinced me ſhe felt herſelf more indiſpoſed than ſhe was willing to acknowledge.

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I ordered ſome diaphoretic powders, and that ſhe ſhould be bled; but thought proper, by a private meſſage to the family, to communicate my ſuſpicion of her diſorder.

I was informed on the 3d, by the mother, that the patient was in all reſpects better, and that the eruptions were beginning to dry off, in the ſame manner as thoſe uſed to do to which ſhe had been before ſubject. She had not been bled, from an apprehenſion of danger in calling into the family a perſon who might have been among the infected; but the mother had taken away a few ounces of blood, by cupping-glaſſes. In the evening ſhe became more feveriſh, and the complaint at the præcordia increaſed. A diaphoretic mixture was ordered, which ſhe thought relieved her, and ſhe paſſed a tolerably quiet night.

The eruptions, as I was told on the 4th, were all gone, that on the neck excepted, of which ſomething ſtill remained. Through this day ſhe was variably calm and feveriſh. In the evening ſhe grew worſe, paſſed a bad night, and had two looſe ſtools.

On the 5th the proportion of nitre in the mixture was diminiſhed, on account of the looſeneſs. In the night ſhe was leſs unquiet on the whole, but had vomitted once or twice after taking the medicine. She had one ſtool.

On the 6th, the mother perſiſted in aſſerting that the eruptions were all gone, except the one on the neck, and this ſhe, with ſeeming reluctance, confeſſed was a little more inflamed ſince yeſterday; but that it gave her no pain, and was certainly nothing elſe than her uſual ſpring eruption.

Had my firſt ſuſpicion of this eruption been juſt, its progreſſive changes ought to have been very different from what they had been, on the ſuppoſition of the accounts brought me being true. This, with the unconcern of the

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family hitherto, inclined me to think I had been miſtaken, and I therefore determined to viſit her; but in order to avoid the inconvenience of being obliged, in the midſt of my daily rounds, to return home to ſhift my clothes, before viſiting patients not infected, I deferred my viſit till the afternoon. About one o'clock I found her in the following ſtate: her face was a little flushed; the pulſe low, and ſlightly feveriſh; the heat of the ſkin moderate; and the tongue moiſt, and of a natural colour. Her countenance was confuſed and dejected, but her eyes were leſs muddy than uſual in the advanced ſtages of the plague. Finding her perfectly ſenſible, I endeavoured to inform myſelf more diſtinctly of her complaints, but ſhe ſtill ſeemed cautiouſly reſerved

ſerved, and ſolicitous that I ſhould not find her diſtemper what, ſhe knew I ſuſpected it to be. The oppreſſion of her heart, ſhe owned, had increaſed, but her principal complaint was a burning pain at the pit of the ſtomach. She aſſured me that the tubercle on the head was almoſt gone, and, as well as the eruption on the neck, gave her little uneaſineſs; and that ſhe was not ſenſible of pain either in the groin, axilla, or any where elſe, except what ſhe had already mentioned. CHAP. I. 1762. April.

A cataplaſm which had been applied to the neck being removed, it was not without ſome ſurpriſe that I found ſo conſpicuous a carbuncle, after the repreſentation that had been repeatedly made of it. The puſtule, which I ſaw at the beginning, was now increaſed to the ſize of a pigeon's egg, livid, except near the baſe, which was hard, and, as well as the ſkin round it, highly inflamed; the ſkin on the middle was ſhrivelled, and a ſanies ouzed out from the edges. Several of the cervical glands were ſwelled, and the left parotid was conſiderably enlarged. All theſe ſwellings, particularly the firſt, were painful, though the girl denied it at the time; but ſhe confeſſed to her ſiſter, after I was gone, that ſhe had concealed her ſuffering pain from the ſwelling in the neck, and the tubercle ſtill remaining in her head, from an apprehenſion of being left to die by herſelf.

Word was brought me in the evening, that ſhe had ſuffered more than ever from the oppreſſion at the præcordia, but in that reſpect was now eaſier; that ſhe complained of pain in the left hypochondre, and that her menſes had appeared ten days earlier than the regular period. She expired about midnight.

Such pains were induſtriouſly taken, in this caſe, to conceal the truth, that I conſider the accounts I received of the progreſs of the diſorder, as very imperfect.

Though, after my viſit on the 6th day, no ſhadow of doubt could remain of the nature of the diſorder, it was with ſome difficulty the family could be perſuaded to conſult their own ſafety, by deſiſting from going into the chamber. But when the girl died, they were in the utmoſt confuſion, eager for inſtantly deſerting the houſe. The family conſiſted of ſeven or eight perſons, who had been expoſed, in different degrees, to the infection, but all of them eſcaped.

It may eaſily be imagined how the family ſhould have been deceived, at the beginning, as to the nature of the diſorder, but it is more difficult to account for their ſo long deferring the precautions recommended to them. There

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can be little doubt that they harboured ſuſpicion, the progreſs of the carbuncle being daily viſible, and the concealing of it ſo pertinaciouſly from me, was a proof of their apprehenſion that a diſcovery would have put a ſtop to their communication with others.

The truth was, the accident happened at a period, when all means were employed to prevent the Europeans being alarmed. The family was half European, and the maſter of it ſo connected with the trade of the city, that a peſtilential accident in his houſe, was likely to make more noiſe than a hundred, in other quarters.—The preſent caſe, therefore, has been ſelected from many others of the ſame kind, as a proof of the influence of certain conſiderations, even over the principle of ſelf-preſervation; and, at the ſame time, to ſhow the difficulty of procuring true information concerning the plague, before the diſtemper be declared univerſally, or while motives for concealment ſubſiſt.

CASE XXVIII[r].

Oſman, a middle aged man, one of the janizaries in the ſervice of the Dutch conſul, was taken ill in the afternoon of the thirtieth of April, and complained of pain in the right groin. He was bled.

May. A perſon whom I ſent the evening of the 2d day, to viſit him, found him lying as if in a deep ſleep, from which, when rouſed, he awoke ſenſible, ſeeming to underſtand whatever was ſaid to him, but his tongue faltered ſo, that he could with difficulty be underſtood. The ſkin was burning hot. He had neither nauſea nor vomiting. There was a bubo near the crural veſſels.

A diaphoretic mixture was ordered. He was very reſtleſs in the former part of the night, but, ſweating a little towards morning, he became calmer.

On the 3d, he continued apparently better all day, till evening, when he ſuffered a ſevere exacerbation, the fever, attended with thirſt, &c. running very high. He paſſed the night, however, leſs unquietly than the former, and had one ſtool.

On the 4th, his chief complaint was the pain of the bubo, which remained hard, and uninflamed. He found himſelf, upon the whole, ſo well,

[r] It ſhould be remarked here, that in many of the ſubſequent caſes, I did not ſee the patients myſelf, but preſcribed for them, on the accounts brought by their attendants, being myſelf, at that time, ſhut up with the factory. Such caſes, in which the accounts ſeemed moſt diſtinct, have been ſelected from a great number more imperfect, contained in my Journals.

that

that he determined to contradict the report that had got abroad of his having the plague, and for that purpose, was carried abroad to an adjacent coffee house, where he staid an hour or two, smoking his pipe. The evening exacerbation was extremely severe, and he passed a restless, delirious night. CHAP. I. 1762. May.

The 5th. Though calmer in the morning than he had been in the night, he continued still restless, and complained much of anxiety, and oppression at the heart. He expired in the afternoon.

The diaphoretic mixture had been taken regularly.

CASE XXIX.

An Armenian youth, about twenty years of age, brother to the man who supplied my house with water, was taken ill the first of May, a bubo appearing in the right groin. He was bled that evening.

During the three first days, the evening and night exacerbations were pretty severe, but he always retained his senses. After the 3d night, the exacerbations, attended with thirst and inquietude, though they returned regularly, were slighter. He had a stool daily, and had never vomited.

The above account was brought me on the 6th day, by his brother, who added that the bubo was painful, but not much enlarged. The pulv. contrayerv. with a little nitre was ordered, and a poultice applied to the bubo. He was more than usually restless in the night, and had two stools.

On the 7th, he was tolerably calm all day. The bubo seemed to advance. The nitre was omitted on account of the bowels, and they again became regular.

After the 8th day *, he took no more medicine, and the cataplasms being found inconvenient, a plaster was applied in its stead. The febrile paroxysms continued to return in the nights till the 15th, and then disappeared. The bubo made slow progress before that time, when the skin inflamed, and the tumor advancing more perceptibly to maturation, opened of itself the 26th, and healed favourably.

CASE XXX.

A Jew banker, in the service of the seraglio, a man between thirty and forty, and of a healthy constitution, had been slightly indisposed with a cold, for several days, about the beginning of May, but went about his ordinary affairs. On the fifth, he returned from the *bazar* before noon, complaining of head-ach, a slight shivering, and (as represented to me) a pain in the left breast, upon breathing. He soon after became feverish, and was bled. At

* It ought to have been mentioned before, at the beginning of the Appendix, that the day of the month is expressed at full length, the dies morbi in figures.

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bed-time he took a diaphoretic powder, and, though ſtill feveriſh, paſſed a tolerable night.

The 2d day, accounts were brought me that he had vomited ſome bile, early in the morning, and a nauſea ſtill continued. Upon enquiring more ſtrictly into the complaint of the breaſt, I found the pain, in reality, was in the axilla; but that no tumor could be diſcovered there. He was directed to encourage vomiting by repeated draughts of warm water, and afterwards to take of a diaphoretic mixture. The water produced no vomiting, the other medicines remained on the ſtomach, and the women had, beſides, adminiſtered ſome bezoar.

By the report in the evening, he remained much in the ſame way; but had had three ſmall ſtools, which greatly alarmed the attendants. A few grains of diaſcordium were added to the diaphoretic mixture. After midnight he had another ſtool, and was very reſtleſs all night; more from the pain in the axilla than from the fever.

On the 3d, he complained of heavineſs, and much confuſion in his head, and ſeemed ſtrongly inclined to ſlumber. The external heat was temperate, and the urine of a yellow colour, which though it might be partly owing to the ſaffron in the contrayerva powder, I ſuſpected to be chiefly owing to bile. The ſleepy diſpoſition, I regarded as a bad ſymptom; for he had not taken above one ſcruple of the ſpec. diſaſcord. and that at twice. The axilla had been examined, and no ſwelling diſcovered; but, as they owned he could not, without complaining, bear the touch of a finger, I made no doubt of a bubo being there, and ordered a cataplaſm to be applied. The patient ſhowing ſome diſpoſition to ſweat, a diaphoretic mixture was ordered, a doſe of which was to be taken every four hours. By the accounts brought in the evening, he had had four ſtools from ten in the forenoon, and had taken once only of the medicine. About noon, a very ſevere exacerbation came on, and the fever ſtill continued high. The pain in the axilla had increaſed after the application of the cataplaſm, and the tumor was now viſible. A ſmall doſe of diaſcordium was ordered at bed-time, and the former mixture to be given in the night. An acidulated cordial was to be taken occaſionally. He paſſed a reſtleſs night; had no ſtools; and ſweated a little.

The 4th. Notwithſtanding he had ſweated, the morning's remiſſion was leſs diſtinct than yeſterday's; he continued feveriſh, with little or no thirſt. The urine, as before, yellow. The bubo had advanced, and the pain from it was his chief complaint. The ſimple contrayerva root, with ſpirit. nitr. d. was ſubſtituted for the compound powder, with a view to diſ-

cover the effect of the saffron on the urine, which was unusually high coloured. The new medicine was to be given every two hours. The exacerbation was extremely severe this day, and came on before noon. The pain of the bubo was excruciating. At four in the afternoon, I was informed, that his feet were cold, and that he was perpetually changing posture in bed. He retained his senses perfectly, and complained of much oppression at the præcordia. As this complaint seemed to be alleviated by the cordial, it was continued, but all other remedies left off. He expired about midnight.

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The bilious appearance of the urine, the nausea, and the diarrhœa, would have induced me to have directed evacuations, but it was in vain to propose them; and I have little doubt that, in this case, they would not have proved of service. The excruciating pain of the bubo so early in the disease, was an unfavourable symptom, and so was the drowsiness on the morning of the 3d day.

CASE XXXI.

A stout young man, a native of Aleppo, and by trade a baker, was taken ill in the usual manner, on the tenth of May, and a bubo appeared the next day in the left thigh. The fever running high for several days at the beginning, he had been twice bled, but had taken no medicine. He applied to me on the 15th day of the disease. The bubo then appeared ripe for opening, the skin much inflamed, externally. Besides the inguinal bubo, there was a very painful tumor on the left breast, which appeared likewise ready to open. Plasters were given to be applied, and both opened the day following. The 22d day, he went to the bagnio, and on his return, came to thank me for my advice. I ordered him a purge. The bubo discharged very little after the fourth or fifth day. The tumor on the breast healed very soon.

I have given this defective case a place here, on account of the tumor on the breast, and as furnishing an instance of a case terminating happily, wherein the patient had been twice bled.

CASE XXXII.

A middle aged man, the porter of one of the public khanes, was taken ill the fifteenth of May, and, on the 2d or 3d day, the right parotid swelled. He neither was bled nor took any medicine.

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His relations applied to me on the 6th day. By their accounts, he was highly feveriſh, and lay for the moſt part ſlumbering, or in a ſtate of ſtupidity. The parotid was extremely hard, but not inflamed externally. He had never vomited, and his body was coſtive.

The prejudice entertained by the Turks againſt camphor, on account of its ſuppoſed enervating quality, was a common obſtacle to its exhibition; but this man being an Armenian, I ordered a few grains to be added to the diaphoretic powders. The attendants imagined he paſſed the night more quietly than uſual, though he did not ſweat.

The 7th. I was informed, that he appeared to be better; and they begged the ſame powders might be continued. He had ſweated inconſiderably in the night.

The 8th. I was aſſured that he ſtill continued better, but that the parotid was become much more painful. It had hitherto only been anointed with *unguent ex althœa*; this day a cataplaſm was ordered, and the powders were continued.

On the 9th, he found himſelf ſo well, that he declared he would take no more medicine, and was importunate for various kinds of improper food. Whether he was indulged or not I do not know; for I heard no more of him till after his death, which happened on the 11th day.

This caſe might have led me to think more favourably of camphor, had it not frequently been tried with leſs apparent benefit, in inſtances where I had an opportunity of obſerving its effects more accurately.

CASE XXXIII.

An Armenian youth was taken ill the twenty-fifth of May, and a bubo appeared in the right axilla. He was bled the 2d day.

The 4th, I was informed that he had from the firſt day remained almoſt conſtantly in a ſluggiſh, ſleepy, ſtate; that he had taken little or no ſuſtenance, and drank very little; he had never vomited, and his body had been regular till the night preceding, when he had two looſe ſtools. Diaphoretic powders were ordered, of which one only was taken. The poor creature was badly attended.

The 5th. He appeared more ſenſible and alert in the morning, but the fever run higher, and he had more thirſt. The powders were continued, and ſpirit of vitriol, with ſyrup of violets, was ordered to be mixed with his drinks.

The

The 6th. By this morning's report, he was ſpeechleſs, and appeared, from his inceſſant change of poſture, to be extremely ill. He drank greedily of the acidulated drink, but could not be prevailed on to take the powders. He expired in the night. CHAP. I. 1762. May.

CASE XXXIV.

An Armenian baker, a young man, was ſeized with febrile ſymptoms on the twenty-firſt, and a bubo appeared in the right groin, the day following. He was not bled.

On the 3d day, I was informed that he had from the beginning generally been comatous; that he now lay ſpeechleſs, and with great difficulty could be rouſed; that he ſeemed to be highly feveriſh, his ſkin burning hot, but he drank little. I ordered ſinapiſms to be aplied to the feet, and that he ſhould be bled. This laſt order was not complied with. In the evening, I was informed, that ſome time after the ſinapiſms had been applied, he became more ſenſible, and that, though the fever ſtill continued high, he appeared on the whole to be better, and leſs reſtleſs. Diaphoretic powders with nitre were ordered, but one or two of them only were taken.

The 4th. I learned nothing further of this patient till ſeveral days after his death, which happened the afternoon of this day.

CASE XXXV.

An Armenian baker, near the Vizier's khane, a young man, found himſelf indiſpoſed for the firſt time on the twenty-ſixth, and diſcovered a bubo in the left axilla. He was bled the day following.

His family applied on the 4th day for my advice, but I could collect only very imperfect accounts of the progreſs of his diſorder. He lay then, by their deſcription, as if comatous, which had been moſtly his condition from the day before. At intervals he drank immoderately, but for theſe laſt forty hours had been able to retain nothing on his ſtomach. His ſtools were regular, and natural. The bubo remained hard, and he did not complain of pain from it. I ordered ſalt of wormwood and lemon juice to be taken in the act of effervescence, but was not informed of the ſucceſs. He died ſome time on the 5th day.

CASE XXXVI.

An Armenian youth, a lodger in one of the public khanes, was taken on the twenty-ninth with a ſlight cold fit, ſucceeded by a head-ach and fever; and, a few hours after, a carbuncle was protruded on the forehead. He was bled

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bled in the evening. Next day, the right parotid ſwelled. He was hot, and extremely unquiet; and the ſkin remained hot and dry, till night, when he ſweated a little about the head and neck.

The 3d day, he appeared much more compoſed in the morning; his chief complaint being from the pain of the carbuncle, which had ſpread ſince yeſterday. Towards noon he became comatous, but when rouſed appeared ſenſible. The carbuncle ſpreading, and the parts round it much ſwelled. A draught compoſed of half a ſcruple of ſal. ammon. vol. acct. diſtil. &c. was given at bed-time, but no ſweat followed, and he paſſed a very diſturbed night.

On the 4th, the carbuncle was become black in the middle, and the eyelids were much ſwelled. In other reſpects he remained in the ſame ſtate as the preceding afternoon. Diaphoretic powders were ordered, but he took none of them, as I learned afterwards.

I heard no more of him till after his death, which happened on the 8th day. The parotid, it ſeems, had increaſed conſiderably in ſize, but remained quite hard. The carbuncle, round the edges of the black cruſt, ſhowed ſome ſigns of ſupuration. The ſwelling of the forehead and eyelids had ſubſided conſiderably, the laſt day; but the glands of the throat had ſwelled to ſuch a degree as to prevent his ſwallowing any thing, and that he ſeemed to die, as it were, by ſtrangulation.

CASE XXXVII.

A Chriſtian girl, about fourteen, was taken ill on the twenty-fourth, and a bubo was diſcovered in the right groin, She was bled, and took a few grains of bezoar. She continued feveriſh and reſtleſs the two following days, but had no vomiting, and her body was regular. On the 4th day, ſhe grew worſe, and in the night became comatous and delirious.

The above was the account I received on the 5th day. She had recovered her ſenſes, and appeared to be much better; the fever was very moderate. She had regularly ſweated a little every day. The bubo was double, the ſuperior round, and ſmaller than the inferior which was oblong like a ſmall cucumber, and lay obliquely in the thigh. She had taken no medicine, except once a little bezoar. A plaſter was applied to the bubo, and diaphoretic powders were ordered; but ſhe took only one of the powders, and not till next day. In the night ſhe ſweated profuſely.

On the 6th, I learned that ſhe had been remarkably better ſince the ſweat. The tongue was very white, and not dry. She had not ſlept in the night,

night, but had little fever, and no thirſt. The bubo was increaſed in ſize, and more painful. CHAP. I.

On the 7th there was no material alteration. 1762. May.

This girl recovered very ſlowly. The bubo continued in a variable ſtate till the 17th, when it began to decreaſe, it never was very painful after the firſt week, and the ſkin remained uninflamed. After the 17th it gradually diſperſed. She had taken no medicines except the bezoar and one powder, and was not purged in the decline of the diſeaſe.

CASE XXXVIII.

A young man found himſelf indiſpoſed on the twenty-ninth of May, and a bubo was diſcovered in the left axilla. Next day a carbuncle was protruded on the middle of the left arm.

On the 5th day he applied to me. He had not vomited, and his body was regular. He had ſweated a little every day. The bubo was hard and painful, not much enlarged, nor inflamed externally. The carbuncle was black in the middle. He took a diaphoretic powder at bed-time, and ſweated profuſely in the night.

On the 6th, the fever, drought, and confuſion of the head, were much alleviated by the ſweat, and he appeared to be greatly better. The carbuncle was exceedingly painful, but ſhowed ſome ſigns of ſuppuration. The diaphoretic powders were ordered to be continued; but the poor creature, who was a ſtranger, had few to aſſiſt him, and thoſe perhaps were themſelves taken ill, ſo that I heard no more of him till ten days after, when I only learned that he was ſtill confined, though recovering.

I do not think the ſweat on the 5th was to be aſcribed to the diaphoretic powder; a ſweat often broke out ſpontaneouſly on the 5th day, and the powder, which was only p. contayerv. edinens. was often given without effect; nevertheleſs, it may be ſuppoſed to aſſiſt, where there was a prediſpoſition to that evacuation.

CASE XXXIX.

An Armenian gunſmith, aged about forty, was taken with a ſhivering, &c. on the twenty-ſeventh, and a bubo appeared in the left axilla. Next day he was bled, but the fever continued high.

On the 3d he was better, in reſpect to the fever, but extremely dejected, and apprehenſive of death. At noon he had an exacerbation, which declined

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clined about four in the afternoon, but a more ſevere exacerbation coming on in the evening, and continuing moſt part of the night, his wife expected he would have expired. He took diaphoretic powders with nitre, every ſix hours.

On the 4th day, he was more compoſed in the morning, but ſtill hot and droughty. The powders were continued, and his drinks acidulated. The night exacerbation was very ſevere, but terminated in a ſweat.

The morning of the 5th he was much more compoſed. A gum plaſter having been applied to the bubo, the ſwelling ſoon after became ſo painful that the patient tore the plaſter off, and inſiſted on having ſome *leban*[2] applied in its ſtead. In the night he was not ſo reſtleſs as the night before, but had three ſtools.

On the 6th he was variably better and worſe all day. He ſometimes lay in a ſtupor, ſometimes appeared extremely diſturbed, and at other times compoſed, and ſurpriſingly well, but never remained one hour in the ſame ſtate. He appeared leſs unquiet in the night; was at times confuſed, but never loſt his ſenſes. He had three ſtools, though the nitre had been changed for diaſcordium.

On the 7th, after a ſweat early in the morning, he appeared to his wife to be more compoſed, and much freer of fever; but his tongue was affected, and his ſtrength exhauſted. The bubo, by her account, was ſomewhat inflamed externally. He expired in the afternoon.

CASE XL.

A woman five months gone with child, was taken with peſtilential ſymptoms the twenty-ninth, and a bubo was diſcovered, the ſame day, in the right thigh. She was bled, and took a few grains of bezoar. On the 4th day, ſhe was delivered of a child who had two buboes, one in the right groin, the other in the right axilla. The child lived only a few hours.

I received the above account the morning of the 5th day. She had loſt, it ſeemed, an uncommon quantity of blood, after her delivery, and then appeared much fatigued and exhauſted. She had in the night been very reſtleſs, moving about perpetually in bed, except at intervals, when ſhe lay as if ſtupid, or inſenſible. Some medicines were ordered, and her attendants were deſired to return next day, but I heard no more of her; from which circumſtance, joined to her ſituation on the 5th, I concluded ſhe muſt have died.

This imperfect caſe has been inſerted on account of the infection of the child. It often happened that the new-born child of an infected mother had no marks of the diſeaſe.

[2] Coagulated milk.

CASE

CASE XLI.

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The wife of a druggoman, or interpreter, a lady about twenty-eight years of age, of a plethoric habit, and the mother of two children, had been indiſpoſed the beginning of April with an intermittent fever, which, after a few paroxyſms, was removed by the bark. On the fourteenth of May, while ſitting at work, on her divan, ſhe felt an obtuſe pain in the forehead, ſomething like what uſed to precede the fits of the intermittent fever; but this, inſtead of increaſing, ſeemed to deſcend to the left temple, and ſhe was ſenſible at the ſame time of an uneaſy ſenſation in the left hypochondre. Being at other times ſubject to nervous complaints, ſhe paid the leſs attention to what ſhe now felt, but was ſoon more ſeriouſly alarmed by a ſhooting pain in the left groin. This induced her to riſe up, and take two or three turns in the room, when not finding the pain increaſed by motion, ſhe began to conſider it as merely imaginary. The pain however returned at intervals, and about two in the afternoon, that is two hours after ſhe firſt felt the pain, the part being inſpected, a hard tumor, the ſize and ſhape of a very ſmall cucumber, was diſcovered near the crural veſſels.

At four o'clock her extremities became cold, ſhe complained of laſſitude and of pain in her legs and ſhoulders. Her arms and hands recovered their warmth in about two hours, but the legs remained cold. She had no diſorder at the ſtomach, and, though ſhe ſuſpected ſhe had got the plague, deſired I might be informed that her ſpirits were better than I had known them on other occaſions, when there was leſs cauſe for deſpondence.

From this account, which was brought me in the evening, I adviſed her to be bled as ſoon as the legs ſhould recover warmth. Diaphoretic draughts were ordered to be taken at bed-time, and early next morning. After the bleeding ſhe complained of pain, and confuſion of the head; but the fever was moderate, and ſhe had little thirſt. After midnight ſhe became more unquiet till towards morning, and then found herſelf better, though ſhe did not ſweat. She had had one ſtool in the forenoon.

On the 2d day ſhe was tolerably calm in the morning, but complained of a loathing, and a bad taſte in the mouth, without however any diſpoſition to retch. I wiſhed her to take a vomit, but ſhe would only take warm water, which ſhe did without effect.

From the time ſhe took the morning draught, ſhe had remained moſtly as if dozing, and for ſome time after the exacerbation came on, at noon, they found a difficulty in rouſing her to take drink or nouriſhment; but ſhe aſſured them that ſhe lay in that manner, not from deſire to ſleep, but becauſe ſhe

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found herſelf moſt at eaſe in ſuch a poſture, the leaſt motion or attempt to ſit up greatly increaſing the diſorder of her head; and ſhe convinced them that ſhe had diſtinctly heard what was ſaid when they imagined her to be in a ſtate of inſenſibility. In the exacerbation, her cheeks were fluſhed, and her eyes red and ſparkling, but ſhe conſtantly retained her ſenſes.

In the evening, ſhe appeared, in all reſpects, much worſe, complaining chiefly of extreme anxiety, or oppreſſion at the heart. Her medicines were a diaphoretic mixture every five hours, and an acidulated cordial occaſionally. Two carbuncles had been protruded this day, one on the left hip, the other lower, on the thigh. She paſſed the firſt part of the night very unquietly. The fever afterward became more moderate; but ſhe could not ſleep, complaining much of her head, and of pains in her limbs; the oppreſſion at the heart continued, but was always mitigated by the cordial. Towards morning the head and breaſt ſweated a little.

The morning of the 3d, ſhe complained of a bad taſte in the mouth. The bubo, to which a cataplaſm had been applied, remained as before; the carbuncles were ſpreading.

About ten in the forenoon, her hands became cold, and of a livid colour, and the anxiety at the præcordia increaſing, ſhe fell into a fainting fit, in which ſhe remained ſo long that her attendants conceived her to be dead. On recovering from this, ſhe complained of violent pain in the left ſide, and remained languid and faint till four in the afternoon: at that time ſhe had little or no fever, and no thirſt, but could with difficulty be perſuaded to take ſufficient ſuſtenance, her ſtomach loathing every thing offered her. She had one ſtool. Confection of alkermes was added to the diaphoretic mixture. She paſſed the night with very little fever, but did not ſleep, nor did ſhe ſweat towards morning.

On the 4th day, the faintneſs and languor were much diminiſhed, but ſhe ſeemed diſpoſed to fall into the ſame drowſineſs as on the 2d day. The ſuperior carbuncle diſcharged a little matter, the other remained dry. A little caſtor was added to the other medicines. The drowſineſs going off, ſhe paſſed a tolerably good day. In the night the attendants could hardly diſcern any fever, but ſhe had little reſt, and did not ſweat.

On the 5th, though ſhe had had no ſweat, ſhe found herſelf remarkably better in the morning. In the day ſhe ſlept two or three hours compoſedly, and her head and neck ſweated a little. The bubo had decreaſed in ſize. In the night ſhe was a good deal more unquiet than uſual. She frequently complained of pain in the right hypochondre, and in the right thigh. The left ſhoulder ached alſo, and ſhe was ſenſible at times of a ſhooting pain in the

left

left axilla. The feverish heat was moderate all night, and she showed no disposition to sweat. CHAP. I. 1762. May.

On the 6th day she was tolerably calm till noon, when a violent exacerbation came on, which continued till evening, and then declined without any sensible sweat. During this exacerbation the fever ran high, and she complained much of internal heat. The pain in the axilla still remaining, she was much dejected, from the apprehension of a new bubo which she imagined must inevitably prove mortal. The exacerbation had left her extremely languid, and with more head-ach and thirst than corresponded with the remaining fever. A mixture composed of sal. vol. ammon. acet. distil. &c. was ordered to be taken at thrice, beginning at bed-time. The fever increasing as night advanced, she became extremely languid, and suffered much from head-ach and thirst, till between four and five in the morning, when a profuse sweat broke out, in which she remained near two hours; but then growing low, faint, and unable to support it longer, the attendants thought it advisable to check it, by shifting her clothes. She had one stool.

The 7th. The fever this morning, though much diminished, was not gone. She felt little of the pains of the side, or the thigh, but the shoulder and axilla continued still painful: no swelling could be perceived in the axilla. The inguinal bubo as yesterday; the inferior carbuncle black in the middle. A mixture with Huxham's tincture, and spirit of nitre, &c. ordered for the day.

Between nine and ten in the morning she had a short chilly fit, after which the fever increasing, she became very unquiet, sometimes delirious, till noon, when a breathing sweat, on her head and breast, mitigated the symptoms; she recovered her senses, but remained feverish. Towards evening she grew worse, the fever rose high; she insisted on sitting in a chair, and walking about the room, but in other respects talked coherently, and expressed much satisfaction at finding the oppression at the præcordia lessened. Distilled vinegar was added to the diaphoretic mixture, for the night, and sinapisms were ordered in case of delirium. She became remarkably better before bed-time, passed a tolerable night, and towards morning, after a gentle sweat on the upper parts of the body, the fever seemed to disappear entirely.

The 8th, she remained tolerably well all day, the noon exacerbation being very slight. The bubo gave little pain, and was reduced to half its former size. She took two diaphoretic powders through the day, and a draught composed of spirit. mindereri and confect. alkerm. in the night. She passed the night tolerably, the fever being very moderate.

CHAP. I.

1762. May.

The 9th day, about eight in the morning ſhe had a cold fit, ſlighter than that of the 7th, and the ſucceeding fever was leſs ſevere, and of ſhorter duration. She did not become delirious, as before, but complained greatly of the oppreſſion at her heart. She grew feveriſh again towards evening, and was reſtleſs all night.

The 10th. Not having ſweated this morning, the fever, in ſome degree, ſtill continued. She ſeemed extremely ſunk, and complained much of the oppreſſion at the præcordia. The acidulated cordial was continued, and draughts ordered, of ſpirit. mindereri, &c. It was recommended alſo to give her chicken broth frequently, two or three ounces at a time. At two in the afternoon, about an hour after taking the draught, a ſweat broke out and continued two hours. Though this ſeemed to weaken her, yet ſhe thought herſelf better, and eat her broth with much leſs reluctance. The oppreſſion at her heart was gone, but ſhe complained of a flatulent pain in the belly, which was relieved by a few ſpoonfuls of an anti-hyſteric mixture, and ſhe paſſed a tolerably quiet night. The body was not coſtive.

The 11th. The fever continued ſlightly till this day at noon, when it diſappeared without any ſenſible ſweat. The bubo was decreaſing, and the carbuncle was healing.

On the 12th, the only complaints remaining were weakneſs, and loathing at ſtomach. A purge would have been proper here, but the patient's want of ſtrength, and the common prejudices againſt evacuations, were inſuperable obſtacles. Huxham's tincture was taken twice a-day.

The 15th. For theſe two nights ſhe has been ſomewhat feveriſh, but was generally relieved by a ſweat in the morning, or the forenoon. A rhubarb bolus taken this morning operated twice copiouſly. Both carbuncles were now healed, and the bubo, though ſtill a little painful, was evidently diſcuſſing; but at night the complaint of the left ſhoulder returned, and a hard ſwelling, as big as a piſtachio nut, was diſcovered in the left axilla, the day following. This gave little pain when touched, but all the parts around, felt to her as if ſhe had had a contuſion on the ſkin.

The 17th. She found herſelf very well. The ſwelling in the axilla as before; the bubo much the ſame for theſe three days. A plaſter was applied in place of the poultice; and a rhubarb bolus with ſix grains of calomel ordered for next day.

The 19th. She had been very well yeſterday, but the rhubarb operated only once. This day ſhe was feveriſh, and complained much of oppreſſion at her heart, as ſhe had done formerly in the febrile exacerbations. Had three looſe ſtools.

The

The 21ſt day, ſhe had been more or leſs feveriſh for theſe two days, and ſtill continued ſo, notwithſtanding ſhe had ſweated yeſterday evening, and again this morning. She was exceedingly exhauſted and weak. Her medicines were ſpirit. mindereri and cordials. The ſwelling in the axilla gone. CHAP. I. 1762. May.

The 23d. Yeſterday ſhe had been better in reſpect to the fever, but felt a weight at the ſtomach, and loſs of appetite. This day ſhe took a purging potion, which operated five times, relieving rather than fatiguing her. She took an anodyne at bed-time, and paſſed a good night. From this time ſhe recovered ſlowly, being ſubject every two or three days to febrile exacerbations. The purge was twice repeated, and ſhe took the bark.

The 30th. The remains of the inguinal bubo could hardly be diſtinguiſhed by the finger.

This lady had a child of two years old at her breaſt, which ſhe continued to nurſe all the time of her illneſs, without communicating the infection.

The indications for purging, in this caſe, were ſtrong, and I expected a diarrhœa in conſequence of the neglect; but the event ſhowed I was miſtaken. I ſtill conſidered it however as proper, and aſcribe ſeveral of the ſymptoms in the exacerbations to bile in the bowels: to that, perhaps, may alſo be imputed the manner of acceſſion of the febrile paroxyſms, reſembling remarkably thoſe of intermittents.

The ſpirit. mindereri ſeemed to be of ſervice, and the acidulated cordials were of uſe, as they frequently had been found before, in other inſtances, for the oppreſſion at the heart.

CASE XLII.

A girl eight years old, who for ten or twelve days had laboured under a regular tertain, was on the fifth of June ſeized (as her attendants believed) with her uſual paroxyſm; but they were alarmed upon finding the fever did not decline at the cuſtomary period. The fever continuing all the following day, a bubo was diſcovered in the right groin.

The 3d day, the girl was brought to me in the afternoon. Her face was pale, but the eyes not muddy; her countenance being rather that of one who had been ſome time ſick of a chronic diſorder, than of one infected. Her tongue was white. Her body was regular, and ſhe neither had nauſea, nor had vomitted. The fever was attended with irregular exacerbations but had not intermitted. The bubo was painful, and had increaſed in ſize. Some medicines were ordered, but I heard no more of her.

I had

CHAP. I.

June.

I had occaſion to ſee few inſtances of the transformation of other diſeaſes into the plague, and have therefore ſelected this caſe as an inſtance of a complication by no means common. I regretted the not having an opportunity of obſerving the progreſs of this caſe, nor did I ever learn the event.

The abſence of muddineſs in the eyes, was not uncommon in young ſubjects.

CASE XLIII.

A young man, an Armenian, was taken ill with peſtilential ſymptoms, on the third of June, and four carbuncles broke out on his left breaſt, before night. He, at the ſame time, was ſeized with a looſeneſs. The fever did not run high the two firſt days, nor were the ſymptoms, in other reſpects, very alarming; but, in the night of the 3d, he vomited ſeveral times, became comatous, and loſt entirely the uſe of his tongue.

I received the above account the forenoon of the 4th day. The vomiting had ceaſed; but the looſeneſs continued, and he ſtill remained comatous. The carbuncles were ſpreading; the external heat was not exceſſive. Sinapiſms were ordered to the feet, and ſome medicines to be taken internally, but with little expectation of ſucceſs. He died the day following.

The carbuncles were the only eruptions, in this caſe. Their early eruption, accompanied with looſeneſs, denoted danger; the acceſſion of vomiting, and coma on the 3d, left little hopes of recovery.

CASE XLIV.

A middle aged man, was taken ill in the night of the third, a bubo appearing in the left axilla. He was bled the morning of the 2d day.

At noon, he loſt the uſe of his tongue, and became extremely reſtleſs. At bed-time, he took ſome powders of ſerpentary and abſorbents. He was comatous moſt of the night.

On the 3d, he lay confuſed and drowſy. He had not vomited, and had little or no thirſt. Sinapiſms would have been proper, but the poor creature was deſtitute of aſſiſtance; and ſome medicines ordered this day, I ſuſpect were not taken.

I was informed after his death, which happened on the 7th day, that he appeared to be rather better on the 4th and 5th, but a vomiting and diarrhœa ſupervening on the 6th, he grew every hour worſe, till his death.

CASE XLV.

A youth, the ſon of the preceding patient (Caſe XLIV.) was taken ill on the third of June, a few hours before the father, and a bubo was diſcovered in the

the left groin. The fever, in the night, run high. He was bled early in the morning of the 2d day, being then cooler than in the night. At noon, a violent exacerbation came on, accompanied with diarrhœa. A little diaſcordium was added to the diaphoretic powders. 1762. June.

The 3d. The looſeneſs ſtill continued. He was extremely ſunk, and exhauſted, and beginning to be comatous.

The 5th. Hearing nothing from him yeſterday, I ſuſpected he was worſe. He expired early this morning.

A diarrhœa was, in general, a bad ſymptom, and where it appeared early in the diſeaſe, rhubarb, or other lenients, in a few caſes where I had an opportunity of trying, did not ſeem to be of much ſervice in checking it.

CASE XLVI.

A maid ſervant, about ſeventeen, was, on the ſecond of June, ſeized with a ſlight ſhivering fit, followed by heat and thirſt, which continued all night. Next day, a bubo was diſcovered in the right groin. She was bled at the arm, in the morning, and took a ſmall doſe of bezoar in the forenoon. Soon after taking the bezoar, ſhe was ſeized with a vomiting, which continued, with little intermiſſion, all night.

The 3d day, the inceſſant vomiting ſtill continuing, ſhe was extremely haraſſed and exhauſted. A ſaline draught in the act of effervescence, had the deſired effect, of putting a ſtop to the vomiting, but the fever continued, and at night ſhe became comatous.

The 4th, ſhe had not ſweated; her ſkin was burning-hot; and ſhe remained comatous. Sinapiſms were applied to the feet, and a mixture with ſpirit. mindereri was given every five hours. She was rouſed ſomewhat by the ſinapiſms, but relapſed in the evening, and paſſed a very reſtleſs night. She did not ſweat conſiderably, but had three ſtools. She was, at times, delirious, and, early in the morning, roſe from bed, and walked about in the court yard.

I was informed, the morning of the 5th, about eight o'clock, that ſhe appeared to have no fever, and that her hands, which before were dry, and burning, were now coldiſh. A mixture like that of yeſterday was ordered, with the addition of a little diaſcordium: but ſhe vomited immediately upon taking the firſt doſe, and it was not repeated. She expired early in the afternoon.

CASE

CHAP. I.

1762. June.

CASE XLVII.

A young man, by trade a baker, was in the forenoon of the ſecond of June, ſeized with a ſevere vomiting. In the evening, a bubo appeared in each groin, and he loſt the uſe of his tongue.

The 2d day, the vomiting continued, and he ſtill remained ſpeechleſs. He was ordered to be bled, and afterwards to take an effervеſcing ſaline draught, which ſtopped the vomiting, in conſequence of which he was enabled to retain his drinks, but paſſed a very unquiet night.

The 3d. He ſtill remained ſpeechleſs; ſhowed no diſpoſition to ſweat; his face was fluſhed, but his ſkin ſlightly feveriſh. He appeared much diſturbed, and was inceſſantly writhing his limbs. Diaphoretic powders were ordered.

The 4th. Though he had perſpired a little in the night, and had one ſtool, there was no alteration for the better.

The 5th. He had, in ſome meaſure, recovered the uſe of his tongue, which the attendants regarded as a good ſign, but he ſtill faltered much in ſpeaking; he had not ſweated in the night, the feveriſh heat was increaſed, and he ſeemed ſtrongly diſpoſed to ſlumber. He died in the afternoon.

I was aſſured that the buboes in the groin had both vaniſhed on the 4th, and that a new one had appeared in the left axilla.

CASE XLVIII.

An Armenian ſilver-ſmith, aged about thirty-ſix, of a plethoric habit, and ſubject to the piles, as well as to hermorrhages from the noſe, was ſeveral times, through the day of the firſt of June, ſenſible of ſlight ſhivering fits, and in the forenoon perceived a ſmall ſwelling in the left groin, which however, as he ſaid, was not painful. In the evening he became feveriſh, and paſſed a hot, unquiet night.

On the morning of the 2d day of the diſeaſe, he was aſſiſted to walk to another houſe, at ſome diſtance, but, in the ſtreet, ſuffered from giddineſs, and ſickneſs at ſtomach. From thence he ſent me the above account of his caſe.

He was ordered to be bled, and to take a draught with ſpirit. mindereri, at noon. In the evening, I found he had born the bleeding perfectly well. The blood was of a high florid colour. The draught had produced no effect. He had one ſtool, mixed with a little blood from the piles. A mixture with the ſpirt. mindereri was ordered. He ſweated a little in the evening, before beginning the mixture, but none throughthe night, which, however, he paſſed more quietly than was expected, and with little apparent fever. The patient

was under much apprehenſion, and greatly dejected. He had one ſtool in the night. CHAP. I.

On the 3d, he was more feveriſh all day, complained of weight and confuſion in his head, and was much diſpoſed to lie with his eyes ſhut, as if ſlumbering, but aſſerted he had no deſire to ſleep. The confuſion of the head increaſed with the fever in the evening, and, at intervals after midnight, he was delirious. He took regularly of the ſpirit. minderer. mixture through the night, but did not ſweat. Had one ſtool. 1762. June.

The 4th, he remained nearly in the ſame ſtate, only that the bubo was much more painful. The ordinary diaphoretic mixture was ſubſtituted for the ſpirit. mindereri. From ten this forenoon till evening, he had been in a breathing ſweat, but had ſuffered ſeveral irregular exacerbations of fever, in which the face became fluſhed, and he was ſlightly delirious. As evening advanced, he grew worſe, drank much more, and was delirious moſt part of the night, often attempting to get out of bed.

The 5th day, his aſſiſtants flattered themſelves he was better in the morning, that his head had been relieved by ſinapiſms, which were in the night applied to the feet, and that he was calmer, and more diſtinct, though ſtill feveriſh and thirſty. The bubo gave him little or no pain. But this deceitful interval was ſoon ſucceeded by ſevere exacerbations, during which he raved inceſſantly, ſometimes writhing his limbs, and ſcreaming as if in excruciating pain, at other times ſtretched on his back, and muttering unintelligibly to himſelf. About noon, a cupful of blood dropped from his noſe. In the evening he became comatous, and died after midnight.

It was obſerved in this caſe, what had been remarked on former occaſions, that the thirſt, without apparent increaſe of febrile heat, was immediately increaſed upon ſubſtituting the uſual diaphoretics for the ſpirit. mindereri.

CASE XLIX.

A middle aged man was ſeized with febrile ſymptoms on the twenty-ninth, of June, and a bubo appeared in the right groin. Next day two carbuncles were protruded, one on the right leg, the other on the upper part of the foot. He had no vomiting, and his ſtools were regular. The fever from the beginning was moderate, and he had ſuffered very inconſiderably from a confuſion in his head.

I received the above account the 6th day, and the patient appeared to be in a fair way. The carbuncles were ſpreading.

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1762. June.

The 8th day, he continued to go on favourably. The foot was much ſwelled, and very painful. The black cruſt in the middle of the carbuncles began to ſeparate at the edges. The exacerbations of the fever were very ſlight; and he had a ſtool once every two days.

On the 10th, the fever was much decreaſed. There was a very ſmall diſcharge from the carbuncles.

The 13th, the cruſt of the carbuncles caſt off. The bubo was advancing very ſlowly, and gave little pain.

The 17th, the ulcers were healing. The bubo was a little inflamed, but it ſeemed doubtful whether it would open. A plaſter was applied inſtead of the poultice, being leſs inconvenient to the patient, who now began to walk about. The bubo opened of itſelf.

This is one of many caſes wherein the ſymptoms were ſlight, and the ſick recovered, without aſſiſtance from medicine; for to a few doſes of diaphoretic powders, given after the 6th, I think no material effect can be aſcribed.

CASE L.

A young man, an Armenian, was on the twenty-fifth of June, ſeized with a vomiting, and other peſtilential ſymptoms, a bubo appearing in the right axilla. Next day he was bled, and the right parotid ſwelled. On the 3d day, a carbuncle was protruded a little above the ſcrobiculum cordis. The vomiting, which had not been ſevere, ceaſed the firſt day. From the beginning to the 7th day, he had been daily ſubject to pretty ſevere exacerbations, in which he was ſometimes inclined to be comatous, but never loſt his ſenſes. He had always a calm interval of two or three hours in the morning, though he had never ſweated conſiderably. His body was regular as to ſtools.

The 7th, I received the above account. The bubo appeared to be advancing, the parotid remained hard, and gave little pain. He took a diaphoretic powder at bed-time, ſweated a little, and paſſed a tolerably quiet night.

The 8th, he complained of pain, and a ſwelling of the right ſhoulder; but his principal complaint was from the carbuncle, which was now black in the middle, forming an eſchar three-fourths of an inch in diameter. The powders were ordered to be taken night and morning, but were taken two days only.

The 11th, the carbuncle was ſuppurating, and every thing appeared to go on favourably. The bubo remained as before. He had at different times ſeemed diſpoſed to ſweat, but could never be prevailed on to encourage it, by proper covering.

The

The 13th day, he had walked abroad on the 12th, and on the 13th had eat a quantity of cucumbers and cherries, which brought on a looſeneſs that continued two days.

1762. June.

The 17th. The cruſt of the carbuncle caſt off. He was ordered the bark, but a few doſes only were taken, and he could not be reſtrained from eating intemperately of fruit, and whatever elſe came in his way.

The 21ſt. Yeſterday two furuncles broke out on his neck, and were very painful. The carbuncle diſcharging copiouſly. He neither took medicines nor obſerved regimen.

The 24th, the diſcharge from the carbuncle was much leſſened. The furuncles were very painful, and much inflamed, but were not peſtilential.

I heard no more of this patient, but make no doubt he recovered, and I imagine the bubo diſcuſſed.

As he took no medicines before the 7th day, and after that took them very irregularly, little can be aſcribed to them. The ſymptoms were more formidable than in the preceding caſe, but thoſe of moſt dangerous portent were abſent.

CASE LI.

In a houſe where ſeveral perſons lay ſick of the plague, a young man, an Armenian, was taken ill on the ſeventeenth of June, but did not apply to me till the 11th day of the diſeaſe, and I found it then impoſſible to collect an exact account of what had happened in the firſt week. He had loſt the uſe of his tongue the 7th day, and was now comatous. He had had no ſtool for four days. A bubo in the left groin had appeared in the beginning, and was at preſent a little inflamed externally. On the left leg was a large carbuncle, black in the middle. Diaphoretic powders were ordered. After taking the firſt doſe he ſweated, and appeared, in the evening, relieved by it. At bed-time he took another powder, and paſſed an unquiet night.

The 12th, he appeared to be better in the morning, and had recovered his ſpeech. Through the day he was variably better and worſe: ſometimes ſenſible and calm, ſometimes raving, and ſometimes half aſleep, muttering unintelligibly.

The 13th, he continued as yeſterday; but the carbuncle began to ſuppurate. Diaphoretic powders were taken night and morning. He did not ſweat, and had no ſtool.

The 14th, the fever was leſs, and his head much relieved, but he ſtill continued reſtleſs. Having had no paſſage for ſix days, a laxative bolus was ordered to be taken next day. The bubo opened this evening.

CHAP. I.

The 15th day, the bolus operated twice, but he continued hot and reſtleſs till night, when he was completely relieved by a profuſe ſweat.

1762. June.

The 16th. No remaining complaints, weakneſs excepted, and pain from the carbuncle, which had ſpread to a great extent, and yielded a copious diſcharge. The bubo diſcharged very little. The bark was ordered in ſmall doſes.

The 17th. He continues as yeſterday, but had taken little of the bark. The carbuncle diſcharging freely.

The 18th. He had a ſhivering fit laſt night, followed by a fever that continued till morning. In this exacerbation a carbuncle was protruded on the left thigh, and a very painful furuncle on the neck. The bark was continued.

The 20th. Yeſterday and this day, he had a ſlight paroxyſm, preceded by a ſenſation of cold, and terminating in a moderate ſweat, in leſs than two hours. The carbuncle and furuncle were advancing.

The 24th. The ſlight exacerbations, in the day, ſtill continue. Yeſterday the bubo threw out a large piece of putrid fleſh. The new carbuncle beginning to ſuppurate; the furuncle not yet open.

The 28th. The feveriſh exacerbations in the day, ſtill continue, but for theſe three days have not been preceded by ſhivering. The firſt carbuncle ſtill diſcharging copiouſly. The furuncle very painful, but not yet open. He had taken no medicines theſe two days.

The 30th. After eating ſome cucumbers, he was ſeized with a looſeneſs, attended with gripes, which, notwithſtanding he took two or three doſes of rhubarb, &c. continued to haraſs him for eight days.

On the 36th, the diſcharge from the firſt carbuncle ſtill was conſiderable, the other eruptions were healed or healing.

This caſe is remarkable for the long continuance of the fever, as well as ſome formidable ſymptoms; it being very rare to find the ſymptoms deſcribed on the 11th and 12th days, ſo late in the diſeaſe. The ſweat, on the 15th, appeared to me to be critical, in regard to the fever; but the return of the fever three days after, and the protruſion of a carbuncle on the 18th, was equally ſingular and unexpected. Was it the large, and long continued diſcharge from the carbuncle of the leg, that ſaved the patient?

CASE

CHAP. I.

CASE LII.

An Armenian baker, a young man, was ſeized the ninth of June, and on that and the following day, no leſs than eight carbuncles, or carbuncular puſtules, were protruded on different parts, viz. three on the belly, near the navel, and five on the back: beſides which, a bubo appeared in the right groin. The fever ran high at firſt, but was not attended with vomiting, and his body was regular. 1762. June.

The 3d day, the fever was ſlight, and he had little or no thirſt. Diaphoretic powders were ordered, and he ſweated a little in the night.

The 4th, he continued as yeſterday. The bubo was advancing. After this day he took no medicine.

The 6th, he had been very reſtleſs laſt night, but was calmer this morning. He had not ſweated.

The 9th, he had been tolerably well theſe laſt two days. One only of the carbuncular puſtules is black in the middle, and begins to ſuppurate; the others remain red, and dry.

The 13th, he was free from all complaints, except pain from the eruptions, and could walk about as uſual, if not impeded by the bubo, which was conſiderably enlarged, and ripe for opening. The puſtules remained dry, and ſhrivelled at the top, and much inflamed round the edges; but he obſtinately refuſed to apply any thing to them.

The number of eruptions is remarkable in this caſe, but, being unaccompanied by formidable ſymptoms, they were leſs alarming. The whole was committed to nature; and the progreſs of the diſeaſe may be conſidered as altogether uninterrupted either by medicine, or error in diet.

CASE LIII.

An elderly man, employed to provide neceſſaries from the market for the Conſular-houſe, complained, on the fourteenth, of wearineſs, weight in the head, and a ſenſation like cold water running down his ſpine. A fever immediately ſucceeded; at night, a bubo was diſcovered in the left axilla, and his tongue faltered when he attempted to ſpeak. He was bled next morning, and the remainder of the day was employed in procuring a lodging, the Aga of the great khane, where he uſually ſlept, being apprehenſive of infection, refuſed to let him remain longer there.

The 3d day, the account brought me this morning was, that he had paſſed a very unquiet night, but was now more compoſed. That he had no vomiting

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ing nor looſeneſs, that the faltering in his ſpeech continued; but that the fever was much abated, and the bubo was very painful, both which were regarded as good ſigns. A diaphoretic mixture was ordered, of which only a few ſpoonfuls were taken. At noon, a ſevere exacerbation came on, in which the fever roſe high, and he entirely loſt his ſpeech; he alſo had three looſe ſtools. Towards the evening he grew rapidly worſe, and expired in the night.

The only formidable ſymptom in this caſe, at the beginning, was the faltering of the tongue. I ſuſpected, however, from what I had often occaſion to obſerve where I viſited the ſick myſelf, that the muddineſs of the eyes, though not remarked, came on very early.

CASE LIV.

An Armenian young man, who had taken refuge at the gardens, in hopes of eſcaping the contagion, found himſelf indiſpoſed on the ſeventh of June, and diſcovered a bubo in each groin. He had no vomiting, but the febrile ſymptoms were pretty ſevere.

I heard of him, for the firſt time, on the 5th day of the diſeaſe. He then continued highly feveriſh; had much thirſt; ſeemed greatly diſpoſed to ſlumber, but was eaſily rouſed, and had all along retained his ſenſes. He drank toaſt and water acidulated, and diaphoretic powders were ordered. He ſweated a little, and was leſs than uſually diſturbed in the night.

The 6th, the fever was more moderate. The acidulated drinks refreſhed him greatly, and he thought himſelf ſo much better for the powders, that he begged they might be continued. The evening exacerbation was not very ſevere, and he paſſed a tolerable night, ſweating a little towards morning. The buboes ſeemed to advance.

The 7th. He was, in appearance, ſo much better this morning, as well as all day, that his aſſiſtants flattered themſelves the danger was paſſed: but in the evening he became ſuddenly worſe, and, much to the ſurpriſe of of thoſe about him, expired in the night.

The account of what happened the firſt days is very imperfect; but from the 5th, appearances were rather favourable.

CASE LV.

A robuſt young man, on the ſeventh of June, was ſenſible of unuſual laſſitude, but having no ſuſpicion of the cauſe, went to bed without making any

complaint. Next morning, he awoke in a fever, and found a bubo in each thigh. He was bled in the forenoon, and in the evening took ſome bezoar, ſoon after which being ſeized with a vomiting, it continued, with ſhort intermiſſions, till the evening of the fourth day. CHAP. I. 1762. June.

On the morning of that day, he loſt near two cups full of blood from the noſe, and half as much in the afternoon, while ſtraining to vomit. He had paſſed very reſtleſs nights.

On the 5th day, he was highly feveriſh all day. Spirits of vitriol, with ſyrup of violets, ordered for acidulating his drinks, and acids were joined with the diaphoretics. He was furiouſly delirious moſt part of the night, attempted to get out of bed, tore his clothes, and laboured with his hands as if to catch objects floating in the air; towards morning, being exhauſted, he became ſomewhat calmer.

The 6th, the delirium continued in a leſs degree. At noon he had a profuſe hemorrhage from the noſe, after which he became more tractable, but was ſtill very unquiet, rambled, and picked the coverlet. In the night he was leſs furious than the night before, but had no reſt. Towards morning he ſweated a little. He took the diaphoretic mixture with ſpirit of vitriol, night and morning. Had one ſtool.

On the morning of the 7th, his body was covered with ſweat, but it gave no relief, and the ſkin remained hot and burning. He was ſomewhat calmer, though ſtill delirious. Sinapiſms were ordered, but not applied. In the evening, I was informed that he lay as if deprived of all ſenſe, and that he had a livid circle round the left eye. The inquietude increaſed in the night, and, after ſtruggling ſeveral hours, he expired. His back, thighs, and hind part of the legs, became livid immediately after death.

The ſymptoms, in this caſe, were alarming from the ſecond day. Hemorrhages were in general dangerous; but, in the preſent caſe, the tendency to putrefaction, and a diſſolved ſtate of blood, was in an uncommon degree. The ſweat, which brought no alleviation, and continued with a hot burning ſkin, was always of fatal portent.

CASE LVI.

A young Turkiſh lady, about fifteen, of a florid complexion, found herſelf indiſpoſed, on the morning of the fourteenth of June. In the afternoon ſhe vomited ſeveral times, and, in the evening, a bubo was diſcovered in her right thigh. This diſcovery alarmed her extremely, and from that moment

ſhe

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ſhe abandoned all hopes of recovery. Next morning, ſhe was bled. The fever never left her from the firſt, but increaſed and declined very irregularly, and ſo extreme was the weight and confuſion of her head, that it was with difficulty ſhe could be prevailed on to raiſe her head from the pillow. She always, however, retained her ſenſes, and knew diſtinctly every body about her. She had frequently ſweated a little, but without ſenſible benefit from it. Her body was regular.

The 4th day. This morning, they had adminiſtered a large doſe of bezoar, (15 grains) but it did not remain on the ſtomach, and the family ſent to me. As I much doubted of their giving her medicines, I only ordered, by way of experiment, an acidulated cordial, grateful to the palate. Of this ſhe took twice, but it remained only a few minutes on the ſtomach. In the night ſhe was much diſturbed.

The 5th. Her condition, this morning, was much the ſame as yeſterday. A diaphoretic medicine was ordered, and it ſtaid on her ſtomach. The noon exacerbation was ſevere, ſhe loſt her ſpeech, and lay perfectly motionleſs, as if ſlumbering, but heard diſtinctly whatever was ſaid in her apartment. The powders were repeated, and ſhe paſſed a leſs unquiet night, ſweating more than uſual in the morning. The body continued regular as to ſtools, but in the evening the menſes appeared, being eight days earlier than their time.

The 6th. She appeared, in the morning, to have been conſiderably relieved by the ſweat, and was thought to be much better; but the ſlave, who attended her with moſt affectionate care, communicated a circumſtance to me which prevented her joining ſo ardently in the hopes of the family. She ſaid, that, from the firſt day, her young lady had been affected with a ſtrange weakneſs of her limbs, inſomuch that ſhe appeared not to have the perfect uſe of them; for when deſirous of ſhifting from an uneaſy poſture, in bed, ſhe always applied to one of her attendants to aſſiſt in moving her arms or legs, as if incapable of moving them herſelf. This the ſlave remarked, with tears in her eyes, was ſo inconſiſtent with the ſprightly temper of her lady, that ſhe was ſure it muſt be a very bad ſign. The bubo was more painful, but in ſize remained as before.

In the afternoon ſhe became worſe in all reſpects, and the evening report repreſented her as writhing continually in bed, franticly tearing her night-dreſs, and ſcreaming aloud as if in pain. Her extremities had once or twice grown cold, but ſoon recovered their heat again. The middle of the bubo was become livid. Her face had not loſt its bloom, and her eyes

were rather ſparkling than, as I expected, muddy. After ſtruggling all night ſhe expired in the morning. CHAP. I.

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The head was much affected from the firſt, and the weakneſs of the limbs was a dangerous ſymptom. The bubo becoming livid, was an uncommon circumſtance. The irregular appearance of the menſes was, in general, unfavourable.

CASE LVII.

The wife of a Venetian merchant, aged about twenty-eight, of a plethoric habit, and at that time a nurſe, received an accidental hurt on the nipple of her left breaſt, about the beginning of June, which gave a good deal of pain, attended with feveriſhneſs. On the 2d day ſhe had a ſhivering fit, after which the fever increaſed, and, in the evening, ſhe felt a pain in her right groin. This circumſtance raiſing ſuſpicion, ſhe took ſome bezoar, and paſſed a very reſtleſs night.

On the 3d, ſhe had a remiſſion till noon, when, the fever increaſing, ſhe was bled. A bubo was diſcovered in the place where ſhe had complained of pain the day before. The bezoar was repeated, and ſhe paſſed another bad night, but was relieved ſomewhat, by a ſweat, in the morning.

The 4th, ſhe was calm in the morning, and the noon exacerbation was ſlighter than yeſterday's. She complained of a weight, and confuſion in her head. A diaphoretic mixture, with ſpirit of nitre, was ordered. The child being ſeparated from her, ſhe ſuffered from the milk in her breaſts, and was reſtleſs in the night.

The 5th. Having ſweated a little in the morning, ſhe was tolerably calm, and remained ſo all day. A poultice was applied to the bubo, which ſeemed diſpoſed to advance. She paſſed a better night than the preceding.

The 6th. She has had but little fever theſe two days. The bubo had made no progreſs. The body regular. The confuſion of head leſs than before, but not gone. She complained of faintiſhneſs, and flatulencies in the bowels, which were relieved by adding ſome confection of alkermes to her former mixture. She paſſed a good night.

The 7th, ſhe ſeemed unuſually heavy, was averſe to ſtirring, and remained remarkably ſilent, but grew more alert in the afternoon.

The 8th, ſhe ſat up ſome hours, and changed her clothes, which, by the Jews, is ſeldom admitted till danger is ſuppoſed to be over. From this time ſhe had no return of fever, the bubo gradually diſperſed, and, on the 18th day, hardly any veſtige of it remained. She was purged twice or thrice with rhubarb.

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CASE LVIII.

1762. June. A Jewiſh young man, of a plethoric habit was, on the twenty-ninth of June, ſenſible of a ſhooting pain in the right groin, without finding himſelf in any other reſpect diſordered. The day following, he went about his ordinary buſineſs, with no other inconvenience than that occaſioned by moving the thigh. At night, he became feveriſh, and next day was bled. After the bleeding the fever increaſed, but was mitigated every four or five hours by gentle ſweats, till night, from which time it purſued one tenour, notwithſtanding the intervening ſweats continued to return.

The fever, on the 4th day, was more moderate till noon, when he ſuffered a ſevere exacerbation, and in the night a ſecond, both which declined with partial ſweats. The bubo was advancing, and very painful. One ſtool.

On the 5th, he had two exacerbations as yeſterday. In theſe the fever ran high, but he was not deprived of his ſenſes.

The 7th, the exacerbations have been very ſlight theſe two days. The principal complaint was the pain of the bubo. He took no medicines, except the acidulated drinks.

The 16th. He has had no return of the fever as in the firſt week, ſince the 8th, but has only ſuffered febrile heats, in the evenings, which were aſcribed to the pain from the bubo. About the 11th, the bubo had begun to inflame externally, and now (the 16th) appeared to be almoſt fully ripe. A gum plaſter was applied inſtead of the poultice uſed hitherto, and the tumor broke about the 20th day.

Many caſes ſimilar to the preſent occurred in the courſe of the plague. The febrile ſymptoms ran high; but the moiſture on the ſkin, and the morning remiſſions were favourable. After the 5th day, there was a manifeſt alteration for the better. The bubo here was the firſt ſymptom, the fever did not come on till after 24 hours.

CASE LIX.

An Armenian woman, about twenty, of a healthy complexion, and in her ſixth month of pregnancy was, on the eighth of June, ſeized with the uſual peſtilential ſymptoms, and complained immediately of pain in her left thigh. The fever was ſlight during the firſt two days, but the exacerbations on the third were very ſevere, and, that day at noon, ſhe had a pretty conſiderable hemorrhage from the noſe. She had vomited at intervals, from the beginning.

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The 4th day, the fever in the morning was high, and ſhe complained much of oppreſſion at her heart. She was coſtive; but her pregnancy, as it had, it ſeemed, prevented her being bled, proved equally an objection to any laxative medicine, ſo that nothing more was ordered than the acid mixture for acidulating her drink. I told her relations, that abortion might probably happen, and adviſed proviſion to be made accordingly.

The 5th, ſhe remained all day much in the ſame ſtate as yeſterday, but at night, labour pains coming on, ſhe was delivered of a living child, that ſurvived only a ſhort while. I could not exactly learn whether it bore marks of infection.

The 6th. By the accounts brought this day, ſhe was much better than I expected. Her miſcarriage being aſcribed to the acid ſhe had taken, they declined giving any more medicine.

The 10th, the bubo was advancing to maturation, and all other appearances were favourable.

Pregnant women, for the moſt part, miſcarried, and very few eſcaped death. The vomiting, in this caſe, was not ſevere, nor conſtant, and ſeveral formidable ſymptoms were abſent; but I did not expect ſo favourable a report on the 6th day.

CASE LX.

An Armenian woman, middle aged, and eight months gone with child, was on the nineteenth of June, taken with febrile ſymptoms, a bubo at the ſame time diſcovering itſelf in the left groin. She was bled the next day, and the fever continued moderate till the 3d night, when ſhe ſuffered a violent exacerbation, and a ſecond bubo appeared in the right thigh. The fever did not decline towards morning.

The 5th, ſhe had been highly feveriſh laſt night, and, though the fever ſince morning had declined, ſhe remained heavy, confuſed, and much inclined to doze. A poultice of bread, milk, and ſoap, had been applied to the firſt bubo, which appeared to be advancing faſt, the ſkin looking reddiſh. She took a diaphoretic powder at bed-time, paſſed a tolerable night, and ſweated towards morning.

On the 6th, the fever was very moderate all day. The principal complaint was the pain of the bubo. The powder was ordered, but not taken.

The 7th, ſhe continued mending.

On the 9th, the firſt bubo was conſiderably enlarged; the other was diſperſing. The patient recovered favourably, the firſt bubo opening in the third week.

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1762. June. This caſe furniſhes an inſtance of a pregnant woman eſcaping a miſcarriage, which ſeldom happened. The ſymptoms, from the beginning, were not formidable, and, after the fifth day, the fever was inconſiderable. She took one powder only, ſo that little can be aſcribed to medicine; and I make no doubt, from what I have obſerved in ſimilar caſes, that the bleeding might have been ſafely omitted, yet I ſhould certainly have adviſed it, from a perſuaſion that it could do no harm, and knowing that any diſaſtrous event, particularly abortion, might poſſibly have been attributed to the omiſſion.

CASE LXI.

July. A Chriſtian woman, in the eighth month of pregnancy, was taken ill on the eighth of July, a bubo appearing in the groin. The fever ran high the day following, but the bubo was conſidered as an objection to bleeding.

On the 3d day, ſhe was delivered of a child who lived twenty hours. No marks of infection appeared on the child's body; but I ſuſpect it had been careleſsly ſearched.

The 4th, ſhe had been extremely unquiet in the preceding night, without any moiſture on the ſkin. The lochia flowed copiouſly. Diaphoretic powders were ordered, but I conſidered her condition as highly dangerous. She was delirious moſt part of the night, and the ſkin remained parched, and hot.

The 5th, the lochia ſtill continued in unuſual quantity, and ſhe was extremely exhauſted. She had recovered her ſenſes this morning, but complained much of oppreſſion at the præcordia, and of faintneſs, and was inceſſantly ſhifting her poſture. She expired in the afternoon.

Delivery haſtened by the plague, was always attended with danger; but when the lochia flowed immoderately, I never knew any eſcape.

CASE LXII.

June. A young Jeweſs, in the ſecond month of pregnancy, was, on the thirteenth of June, ſeized with the plague, a bubo appearing the ſame day in the right thigh. She was bled next morning, but the fever continued high, attended by frequent retchings. On the third day ſhe miſcarried.

Her relations applied to me the morning of the 4th day, but from their repreſentation of her condition, I ſaw little ground for encouraging their hopes. She had been delirious in the night, and the fever ſtill continued high. She had not loſt much blood by the abortion, but appeared languid to the laſt degree,

degree, and could retain nothing whatever upon her ſtomach. Saline draughts in efferveſcence were ordered, and oil of mace to be applied externally. From my receiving no report in the evening, I ſuppoſed ſhe was very ill, and that ſhe died that night, or next day.

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CASE LXIII.

A Chriſtian woman, about twenty, of a plethoric habit, and in the fifth month of pregnancy was, on the fifteenth of June, ſeized ſuddenly with a ſhivering ſucceeded by fever, and, in the morning, a bubo was diſcovered in the left axilla. The fever had been ſo ſlight the three firſt days, that bleeding was deemed unneceſſary.

On the 4th day, the motion of the child, which had been unuſually briſk, ceaſed at once; ſhe found a weight in the womb, and in the evening obſerved a ſmall diſcharge of blood. In the night ſhe was very unquiet, and had ſeveral fainting fits.

On the 5th, the fever was ſlight, and her head clear; but ſhe was ſtill faintiſh, complained of her back, and ſhe had a ſmall watery diſcharge from the uterus, ſeveral times in the courſe of the day. An acidulated cordial was ordered, and abortion predicted.

I know not the event of this caſe. The woman lived in a diſtant ſuburb, which perhaps prevented their ſending again next day.

CASE LXIV.

A young Chriſtian lady, in the ninth month of pregnancy, complained on the twentieth of pain in her throat, and behind the left ear. In the evening, the pain in the left parotid increaſed, and ſhe was feveriſh. She had for ſeveral days before obſerved ſome of the cervical glands enlarged, and conceived the whole to be owing to cold. The fever was conſiderable the two following days; the pain of the parotid increaſed; ſhe was very unquiet, eſpecially in the night. She had had no vomiting, and her body was rather coſtive.

The 4th. The fever was moderate this morning, but afterwards increaſed, and in the night was attended with extreme inquietude, faintneſs, and oppreſſion at the heart. Her head was confuſed, but ſhe retained her ſenſes, in the exacerbations.

The 5th. About ten in the afternoon, ſhe fell into labour, and after two hours was delivered of a male child, without any marks of infection on its

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its body. In the evening ſhe was extremely low, and exhauſted, but perfectly ſenſible. The ſwelling of the parotid, and the axillary glands, were much increaſed. A cordial was ordered to be taken alternately with chicken broth.

On the 6th, ſhe expired early in the morning.

The ſymptoms in this caſe, at firſt, were not alarming. The ſtomach and bowels were not affected, and her head remained tolerably clear; but the anxiety, and oppreſſion at the heart, in the exacerbations, denoted danger, and the advanced ſtate of pregnancy left little room for hope.

CASE LXV.

A robuſt young man, a groom, in the ſervice of one of the Engliſh gentlemen, found himſelf indiſpoſed the nineteenth of June, and next day diſcovered a ſmall, hard ſwelling, in the left groin. He was bled at the arm, but a large quantity of blood being taken away, he fainted, and the ſwelling in the groin diſappeared.

The 3d day, he complained of head-ach, and thirſt, but the fever continued moderate till night, when it increaſed, and he became very unquiet. His drink was acidulated, and the uſual diaphoretic medicines were ordered.

The 4th, he was pretty calm in the morning, and till eleven in the forenoon, when a ſevere exacerbation coming on, laſted above three hours, and declined with a conſiderable hemorrhage from the noſe. The bubo, which was ſaid to have vaniſhed, re-appeared, and from that time advanced. In the evening the fever again increaſed, attended with excruciating head-ach, and a remarkable change of countenance. After midnight he became more compoſed, and ſweated a little in the morning.

The 5th, he found himſelf much better, and expreſſed a deſire for food, ſaying he was very well now, if it was not for the bubo, which was very painful. About noon, came on a ſevere exacerbation, in which he ſoon grew delirious, loſt the power of ſpeech, and picked the bed clothes; then ſinking into coma, his breathing became ſo laborious, that he was thought to be in the agonies of death. Sinapiſms were applied to the feet, but he permitted them to remain on only a ſhort while after they operated. The fever began to abate about eight in the evening, and he paſſed the night much quieter than was expected.

The 6th, he was tolerably well all day, and paſſed a good night, but ſweated very little. The medicines were continued.

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The 7th day, he found himſelf ſo much better this morning, that he wanted to leave his bed, and was impeded only by the pain of the bubo. At noon he ſuffered an exacerbation of the fever leſs ſevere, and of ſhorter duration, than that of the 5th, but a ſecond bubo was protruded in the ſame groin. This night he enjoyed ſome repoſe, and ſweated a little.

The 8th. This day's exacerbation was pretty ſevere, laſting from mid-day till four in the afternoon. He rambled a little at times, and a third bubo was protruded near the two former. A gum plaſter was applied to the firſt bubo, which was now ſlightly inflamed, and a poultice laid over all three.

The 10th, the exacerbations have been very ſlight for theſe two days, and he got ſome ſleep in the nights. The firſt bubo was very painful, the others were advancing. His right eye was a good deal inflamed.

The 12th. He had had no fever theſe two days, except what ſeemed to ariſe from the pain of the buboes. He took a purging potion, this morning, which operated three times. The firſt bubo had grown to an enormous ſize, was highly inflamed, but did not feel ſoft. The plaſter was chan ed for the ſimple poultice. An anodyne, at night, compoſed him for ſeveral hours. The 12th, the large bubo had opened unexpectedly yeſterday, but diſcharged very little. One of the others was advancing faſt. Small doſes of bark were ordered.

The 15th, the ſecond bubo broke yeſterday, and both are ſuppurating favourably.

The 18th, the inflammation of the eye, which was nearly gone, again became troubleſome. The third bubo ripening. The purging potion ordered to be repeated to-morrow.

The 20th, the purge yeſterday had operated ten times, and extremely fatigued the patient. The anodyne, at bed-time, had however compoſed him, and he was this day in good ſpirits. From this time he continued to recover; the buboes, which together formed a ſwelling of enormous ſize, diſcharging copiouſly, through diſtinct orifices.

The 30th, the ulcers were ſtill diſcharging.

The diſappearance of the bubo after the bleeding, ſuppoſing the fact exactly as repreſented, was a ſingular circumſtance, but a perſon not accuſtomed to ſearch, may eaſily be deceived. I never myſelf ſaw an inſtance of the kind, and the re-appearance of the bubo, on the 4th day, renders it probable that the tumor had not totally diſappeared. It was not uncommon to ſee the buboes very irregular in their progreſs, decreaſing and

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and increaſing in ſize, and more or leſs painful, in the courſe of the ſame day. But this alteration chiefly affected the ſkin, for the gland itſelf, when once perceptible to the finger, remained permanently hard for ſome time, and its diſperſion, ſo far as I could obſerve, was always ſlow. The hemorrhage from the noſe, on the 4th, ſeemed to prove ſalutary, contrary to the uſual effect of fluxes of blood, in the plague. The exacerbation, on the 5th, was very alarming, but the ſucceeding lucid interval encouraged hopes, which a ſimilar remiſſion would not have done earlier in the diſeaſe. The protruſion of the buboes, on the 7th and 8th days, was remarkable, as alſo the three coming to ſuppuration; for where there was a ſucceſſive eruption of buboes, it was very ſeldom that all advanced to maturation.

CASE LXVI.

A middle-aged man was ſeized ſuddenly with febrile ſymptoms, on the twenty-fifth of June, and the left parotid ſwelled in the night. The 2d day the fever went off and returned irregularly, but the head-ach remained conſtantly, though moſt violent in the exacerbations. He had no nauſea nor retching. Was bled in the afternoon. In the evening, the fever increaſed, his head became confuſed, and he appeared drowſy, but anſwered diſtinctly when ſpoken to. He took a diaphoretic powder before midnight, and, by the nurſe's account, enjoyed ſome hours of repoſe.

The 3d, he had not ſweated, and was highly feveriſh without thirſt. There was a ſtrong tendency to coma, and he rambled at intervals. The ſwelling of the parotid had increaſed, and was more painful. In the night the coma increaſing, ſinapiſms were applied to the feet. He had two ſtools, but did not ſweat.

The 4th, he had vomited the morning doſe of the powder, but his drinks remained on the ſtomach. His condition remained the ſame as yeſterday, only that the parotid had increaſed, and the ſkin, in the middle of the tumor, was beginning to inflame. He died on the 5th day.

The parotid, when the ſole eruption, for the moſt part denoted danger. In the preſent caſe, the patient ſweated little or none, the diſpoſition to coma came on early, and there were no favourable morning remiſſions.

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CASE LXVII.

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A middle aged man was taken ill on the twentieth of June, a bubo was discovered in the left thigh, and he was bled that night. He continued feverish all next day, but had no nausea, and his bowels were easy.

On the 3d day, he began to bleed at the nose, and the bleeding continued twenty four hours, without intermission, by which he was reduced to the last degree of weakness. From this time to the 10th day, that he applied to me, I could collect only in general, that he had daily suffered exacerbations of illness; was often disposed to doze involuntarily; and, though his head was much confused, had never lost his senses. He had never sweated considerably.

The 10th. The fever had never left him, and was sometimes pretty violent. The bubo remained hard, having made little or no progress. His weakness was extreme, having taken no other sustenance, from the first, but almond emulsion, and cucumbers. Diaphoretic powders were ordered, and chicken broth directed to be given in small quantities. Having had no stool for five days, a suppository was applied, but without effect.

The 12th. He had only begun yesterday to take broth, and soon after had two stools. He had been feverish in the night, without sweating. The bubo remained much as before. This night he sweated a little for the first time, since very early in the disease. The powders were continued.

On the 13th, an efflorescence of small red pimples appeared universally on the skin. From this time he took no medicine. He was long in recovering his strength; and the bubo coming slowly to maturation, opened in the fourth week.

The hemorrhage was remarkable in this case, and by reducing the patient so low, possibly protracted his recovery, and impeded the progress of the bubo.

CASE LXVIII.

A young Turkish lady, of eighteen, complained in the morning of the twenty-sixth, of pains in her bones, and in the forenoon she had a shivering fit, succeded by feverish heat. About mid-day the fever ran high, attended with a shooting pain in the right groin. She was bled at the arm. In the night, her head was much disorded, she vomited several times, and was very unquiet, without any disposition to sweat.

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The 2d day. The fever and retching ſtill continued; her principal complaint was a ſtrange weight or confuſion in the head. Two ſaline draughts, in a ſtate of efferveſcence, were given, but both were immediately ejected, and indeed nothing remained on her ſtomach. Theriac. and oil of mace were applied externally, but the vomiting continued all night, with the addition of diarrhœa, after midnight. She had vomited the medicines they had given her, and retained what ſhe drank a very ſhort while only.

The 3d. She was this morning hot, thirſty, and extremely haraſſed by the vomiting, and looſeneſs. Twenty grains of ſpec. diaſcord. mixed with a little conſerve of roſes, were divided into three portions, and one of them given every two hours. I was informed in the evening, that the vomiting and looſeneſs having ſtopped, ſhe found herſelf greatly better. She took a diaphoretic powder at bed-time. She was highly feveriſh and unquiet in the night, but growing calmer towards morning, ſhe enjoyed ſome hours of repoſe, and awoke in good ſpirits.

On the 4th, the attendants conſidered her as greatly better, and informed me the bubo had advanced, and was very painful. Diaphoretic powders were ordered, and her drinks were acidulated. She had a pretty ſevere exacerbation in the afternoon, which declined ſomewhat in the evening; but the fever ſoon increaſing again, ſhe was delirious moſt part of the night. Had two ſtools.

The 5th. She was more compoſed and ſenſible than in the night, but much ſunk, and a coma appeared to be approaching faſt. No moiſture was obſerved on the ſkin. She ſighed frequently, and ſeemed indifferent to every thing about her. A ſimple acidulated cordial was ordered to be taken occaſionally. She died in the night.

A vomiting, when protracted to the 3d day, was in general an alarming circumſtance, unleſs where other ſymptoms were very ſlight. In the preſent caſe the head had been early affected, the ſkin remained dry, and there was no favourable remiſſions in the morning. The flattering calm on the 4th day was not to be truſted, for it had been preceded by no kindly moiſture on the ſkin; and the ſeverity of the ſubſequent exacerbation took away all hope of a favourable iſſue.

The diaſcordium was given on the 3d, chiefly with a view to check the vomiting; and the quantity was ſo ſmall, that, without ſuppoſing the vomiting and looſeneſs about to ceaſe ſpontaneouſly, it can hardly be thought capable of producing ſo ſudden an effect in ſtopping both. I have, in caſes of diarrhœa in the plague, ſometimes joined rhubarb with the diaſcordium;

but, beſides remarking little benefit from ſuch a mixture, there was an objection to rhubarb, except where given profeſſedly as a purge; to wit, the drug being ſo well known in that country, that there was no diſguiſing it, and the conſequence of its being detected in compoſition, was the rejecting the medicine altogether, from a dread of its purgative quality. CHAP. I. 1762. June.

It may be remarked further on this head, that the diſcharge from the ſtomach and bowels have often much leſs of a bilious appearance in the plague than in ordinary ſummer fevers, and, as it appeared to me, might be checked more ſafely without the previous uſe of purgatives.

CASE LXIX.

A man between ſixty and ſeventy, was taken ill the twentieth of June, at night, and a bubo appeared immediately in the right thigh. Next day, five carbuncles broke out on the right leg. He had no ſickneſs at ſtomach, nor had the fever, in appearance, roſe high; but he had been almoſt conſtantly comatous from the firſt. He was bled the 2d day.

The 3d. The fever was moderate, and he had little or no thirſt; but ſtill continued comatous, and his ſkin dry. Camphor was joined to the diaphoretics. From this day I heard no more of him, till after his death, which happened on the ſixth day.

It has been obſerved before, that an early and continued coma was in general a deſperate ſymptom, and a frequent concomittant in the beginning of the peſtilential ſeaſon. The preſent defective caſe has been produced as an inſtance of that form of the diſtemper being met with at a late period.

CASE LXX.

A middle aged man, without previous indiſpoſition, complained, on the twenty-firſt, of laſſitude, head-ach, and pain in the left thigh; but no ſwelling was diſcovered till the following day. He was bled the ſecond day, being highly feveriſh; in the evening he retched ſeveral times, and was tormented all night with racking pain in the back.

On the 3d, a looſeneſs ſupervened, which continued with ſuch violence till the afternoon of the 5th, that he had in that interval above one hundred ſtools.

The 5th. On applying to me this afternoon, he was repreſented by his attendants as having little or no remaining fever; that is, that his ſkin was temperately hot, and he had no thirſt; but that he was extremely weakened by the looſeneſs, and the bubo had made no advance. Half a drachm of ſpecies

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diaſcordium, with conſerve of roſes, was ordered to be taken at four times. He was very unquiet in the night, but had only four ſtools.

The 6th. He ſeemed to be in every reſpect better in the morning. He ſuffered more than one exacerbation of fever through the day, but had only four ſtools. The ſame quantity of diaſcordium as before, being joined with the pulv. contrayerv. a fourth part was given every ſixth hour. He was extremely ill in the night; for the moſt part delirious, his breathing laborious, a rattling in the throat, and his body bathed in clammy ſweat.

The 7th. He was more compoſed this morning, and had recovered his ſenſes; but was unuſually impatient and moroſe. He had vomited the morning doſe, but retained the medicine at noon, and had no ſtools. He ſuffered a ſevere exacerbation this afternoon. His drought was exceſſive, his breathing laborious, the extremities coldiſh, and on ſeveral places livid. He remained ſenſible, but his countenance was much altered. Sinapiſms were ordered.

The 8th. He had been furiouſly delirious all night, and in the morning his extremities were cold. He expired before noon.

Had I not in other caſes, where diarrhœa was a concomitant ſymptom, and where no medicine whatever had been given, obſerved the diſtemper purſue the ſame progreſs as in the preſent caſe, I ſhould have been more apt to ſuſpect the diaſcordium of having done harm. But the quantity given in forty-eight hours did not exceed one drachm of the ſpecies, and the looſeneſs was not ſtopped at once.

The pain in the back, on the 2d night, was an unuſual ſymptom.

CASE LXXI.

A Chriſtian woman, between thirty and forty, complained on the twelfth of June, of laſſitude, head-ach, and chillineſs, which were ſoon followed by feveriſh heat, and a vomiting. In the night ſhe was very unquiet, and a bubo appeared in the right thigh. Next day ſhe vomited ſeveral times, and the fever ſometimes was pretty high, accompanied with partial ſweats; but the patient being of a delicate conſtitution, and, in appearance, much exhauſted by the exacerbations, it was judged improper to weaken her more by bleeding. The two ſucceeding days, ſhe continued to ſuffer irregular exacerbations, accompanied generally with partial ſweats. In the night of the 4th, ſhe had been ſlightly delirious.

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The 5th day. She had recovered her ſenſes this morning, and the external heat was temperate, but her eyes were muddy, and her countenance much altered; ſhe was perpetually changing poſture, and ſuffered great oppreſſion at the præcordia. She complained of much confuſion in her head, that ſhe could not diſtinctly diſcern objects, and expreſſed an apprehenſion of growing blind. Sinapiſms and diaphoretic powders were ordered. She took one of the powders at noon, part of which was immediately ejected; but ſhe ſoon after fell into a ſound ſleep, and awoke, after three hours, much refreſhed, her looks were mended, and ſhe found herſelf much better. The bubo did not give her much pain. In the evening the inquietude returned, ſhe was very hot, and diſpoſed to ramble; but after the application of ſinapiſms, and taking one powder, ſhe became more compoſed, and paſſed the remainder of the night tolerably.

The 6th. Notwithſtanding ſome repoſe laſt night, ſhe was this morning very ill. The fever had declined, but the oppreſſion at the heart was exceſſive, and ſhe was perpetually changing poſture. The attendants, however, remarked that her eyes were not ſo muddy as yeſterday. The powders were given every ſix hours. The inquietude continued till ten o'clock, when ſhe took one of the powders, ſoon after which ſhe fell aſleep, and repoſed three hours, in a breathing ſweat. The inquietude returned in the afternoon, but was calmed upon taking another of the powders; and the night exacerbation ſeemed alſo to be remarkably alleviated, upon taking a third powder. The fever roſe high in the night, but though ſhe did not ſleep, ſhe lay quieter than uſual.

The 7th. She was rather better in the morning, though ſhe ſtill complained of extreme anxiety, and of confuſion in her head. The bubo was advancing. From mid-day ſhe ſuffered ſeveral exacerbations, attended with thirſt, writhing of the limbs, and delirium. The powders had not the ſame effect as before. By the accounts brought me in the evening, the lower extremeties were cold, and ſhe had all the appearance of a perſon in the laſt agony; but after remaining an hour in that ſtate, the limbs recovered their warmth, and the fever, which had ſubſided, returning, raged all night. She had one ſtool, but did not ſweat.

The 8th. She had recovered her ſenſes this morning, but was extremely low, and her countenance ghaſtly, and dejected. In the powders hitherto, ſerpentary had been ſubſtituted for contrayerya, but this day the uſual contrayerva powders were ordered. Sinapiſms alſo were ordered to be applied to the feet. She was rather better through the day than yeſterday, but was equally ill and reſtleſs in the night.

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CASE LXXIII.

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A young Jewiſh lady, then nurſing her firſt child, five months old, complained on the fifteenth of June, of a ſharp pain in the left axilla, which was not, ſhe ſaid, conſtant, but went off and returned ſuddenly. She grew feveriſh at night, and the woman who ſearched her, thought ſhe felt a ſmall hard ſwelling, deep under the ſkin. Her caſe being immediately ſuſpected, they had given, (I believe, in urine) a doſe of bezoar, which did not remain on her ſtomach.

The 2d day. No tumor could be perceived this morning, but ſhe ſtill complained of pain in the axilla, as well as of violent head-ach. Being of a plethoric habit, ſhe was bled at the arm before they ſent to me. The fever was very moderate in the evening, and in the night. She took ſpirit. minderi at bed-time, but did not ſweat.

The 3d, the bubo could be felt by the finger, hard, and deep ſeated, the ſkin puffy, not tenſe. A carbuncle appeared on the left breaſt. She complained of pain at her heart, but the fever was ſlight, ſhe had little or no thirſt, and paſſed a calm night. Her medicines were a diaphoretic powder night and morning, and an acidulated cordial; but ſhe did not take the night powder.

The 4th, ſhe found benefit from the cordial. She had a ſlight exacerbation at noon, which declined witha gentle ſweat. In the night, ſhe was feveriſh for ſeveral hours, but towards morning was relieved by a ſweat. She had one ſtool.

The 5th, the carbuncle had ſpread, and ſuppuration was begun round the edges of the cruſt; the bubo was painful, but had not advanced.

The 8th, the fever had been very ſlight, for theſe two days; ſhe had not ſweated conſiderably, but the ſkin was ſoft, and moiſt. The cruſt of the carbuncle caſt off. A powder had been given every night.

After the 8th, ſhe remainded free from fever. She was purged on the 17th, and the carbuncle healed ſoon after. The bubo diſcuſſed. About the 20th, ſhe went to the bagnio, and in the fourth week, took her child, which had been ſent to nurſe, to her breaſt again, for ſhe had taken care, by drawing the breaſts, to preſerve her milk.

This may ſerve as an inſtance of that leſs malignant form of the plague, with which numbers were infected this year, in the months of June and July, and from which many recovered without any internal medicines whatever. Moſt of them, I believe, were bled at the beginning; but

little material difference, in the progreſs of the diſeaſe, was obſerved in caſes where bleeding had been omitted. CHAP. I.

CASE LXXIV.

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A young man, a Chriſtian, was ſlightly feveriſh, the evening of the twenty-ſecond of June, and diſcovered a bubo in the left thigh. Next day he complained of head-ach and giddineſs, and the fever, increaſing, roſe pretty high in the night. A carbuncle was protruded on the belly. He was not bled.

On the 3d day, he was compoſed in the morning. The exacerbation at noon was ſlight, and went off in a gentle ſweat. He took a powder at night, and reſted ſeveral hours.

The 4th. This morning he complained of nauſea, and loathed all kind of food. He was adviſed to drink warm water, and afterwards to take a ſaline draught, but being relieved by the water, though he did not vomit, he did not take the draught. At four in the afternoon, he had a pretty ſevere exacerbation, which declining in the evening, he paſſed a tolerable night.

The 5th. The carbuncle was ſpreading; the bubo had made little advance. All the other appearances were favourable. He had not had a ſtool, but found no inconvenience from want of paſſage. A calm night, the fever being very moderate, and the ſkin moiſt.

The 6th. All went on proſperouſly. The carbuncle was ſuppurating; the bubo ſeemed diſpoſed to diſcuſs. He ſweated in the night.

The 7th. He was almoſt free from fever. He had a ſtool yeſterday, and another to-day. The powders were taken night and morning.

The 9th. He had been very well theſe two days. The bubo, ſince yeſterday, was more painful, and had become more ſwelled. He took a powder every night, to the 13th. The bubo advanced, and broke about the 20th.

Had this patient been bled, the ſlow progreſs of the bubo would have been aſcribed to the evacuation being made at an improper time; for bleeding, it ſeems, was not propoſed till the 2d evening, and then omitted on account of the bubo having made its appearance twenty-four hours before. But I have no reaſon to think the bleeding would have made any material alteration; and have often remarked, in caſes ſimilar to the preſent, that the progreſs of the diſeaſe, as well as of the eruptions, ſeemed to be little affected by that evacuation, made within the firſt forty hours. I ſeldom had occaſion to ſee it made later.

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CASE LXXV.

1762. June. A young man, brother to the patient (Caſe LXXIV.) was feveriſh on the twenty-eighth of June, and diſcovered a bubo in the right thigh. The fever continued all next day, but being ſlight, bleeding was thought unneceſſary.

The 3d day. The fever ran pretty high; he ſeemed much diſpoſed to ſlumber, and, in ſpeaking, his tongue faltered. Diaphoretic powders were ordered. He paſſed rather a reſtleſs night, and had ſweated very little but his ſkin was not parched.

The 4th, the bubo was hardly perceptible to the touch; but the ſcrotum was ſwelled, and painful. The exacerbations were ſlight, and in the night he ſweated a little.

The 5th, he had little or no fever, and remained calm all day. The ſcrotum better.

The 6th, he remained, as yeſterday, has had a natural ſtool daily ſince the 4th. From this time he took no medicine. About the 9th the bubo became more painful, and began to advance. Its progreſs was then pretty quick, for it opened toward the end of the third week.

This was another ſlight caſe, where bleeding was omitted, and where the bubo made little progreſs before the 9th day. Appearances on the 3d day were not ſo favourable as in the preceding caſe; but they ſoon mended. The ſwelling of the ſcrotum was unuſual.

*CASE LXXV.

A young man, a Jew, finding himſelf, on the twenty-third, indiſpoſed with the head-ach, and other febrile ſymptoms, was bled in the afternoon. Next day, and the day following, he was well enough to attend his buſineſs in the *bazar*, and thought himſelf perfectly well. On the fourth he again became feveriſh, and a bubo was diſcovered in the right groin. The fever continued in irregular exacerbations the two following days. He had no nauſea, and the bowels were eaſy.

The 7th day. The fever was very ſlight, though he had never ſweated conſiderably; but his head was confuſed, and he was much inclined to doze. The bubo was very painful.

The 9th, he continued much the ſame as on the 7th. Paſſed two or three worms by ſtool. He had taken a few powders the three laſt days, but now left off medicine. The bubo began to inflame externally about the 11th, and opened the end of the 3d week.

The

The only remarkable circumſtance in this ſlight caſe, was the calm interval between the firſt and fourth days; ſuppoſing the firſt fever to have been really peſtilential. It was uncommon, at that time, for the bubo to be ſo late in making its appearance. CHAP. I. 1762. June.

CASE LXXVI.

A Jew, an old man, who had been employed, on the twenty-fifth of June, in ſurveying the Jewiſh burial ground, found himſelf, upon his return home, early in the afternoon, much heated; but aſcribing it to the having been expoſed ſeveral hours to the ſun, he drank two cupfuls of brandy, by way of cordial. Towards evening, a fever declaring itſelf, he was bled. The fever, during the two following days, proceeded in a pretty equal tenor, without thoſe irregular changes common in the plague, which, joined to the abſence of eruptions, led the women to imagine his diſtemper was a bilious fever.

The 4th day. This morning, before applying to me, he had taken a glyſter, that operated twice. The fever ran high; the tongue was yellowiſh, and he complained of a bitter taſte in the mouth. At night, he felt a pain in the left thigh.

The 5th, the fever remained as yeſterday. The bubo ſmall, deep ſeated in the thigh, and very painful. He was reſtleſs in the night, and did not ſweat. Had two ſmall ſtools.

The 6th, there was no material alteration, only that his head was more confuſed. In the night he became delirious; but ſweated a little early in the morning. The diaphoretic powders had been taken night and morning hitherto; this day they were given every eight hours.

The 7th. He was diſpoſed to be comatous in the morning. The bubo was advancing. He was ſo ill all day, as well as in the night, that the attendants, as their cuſtom is when they think danger imminent, abſtained from giving remedies. Towards morning he fell into a profuſe ſweat.

The 8th. He found himſelf much relieved.

The 10th, the fever continued ſtill, but in a ſlight degree. The bubo beginning to inflame externally. He took no medicine after the 6th. The bubo opened in the 4th week.

In this caſe the bubo did not appear till the 4th day, which was much later than uſual at this time (ſee Caſe LXXV). Another remarkable circumſtance was the equal courſe of the fever. The morning remiſſions were very indiſtinct; the exacerbations leſs ſevere than uſual in the plague.

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The profuſe ſweat, in the night of the 7th, ſeems to have been critical, but it may be remarked, that he had taken no medicine that night.

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CASE LXXVII.

A young man, about three and twenty, of a delicate conſtitution, was ſeized on the twenty-ſixth of May, at noon, with a ſhivering, ſucceeded by a fever, a violent head-ach, and he vomited ſome greeniſh bile, at two or three different times. In the evening he was bled largely, but continued highly feveriſh all night, and his head was much diſordered.

The 2d day. He had not ſweated, and the fever was very little abated; but his principal complaint was of a confuſion in his head. He had been ſearched, but no eruptions were diſcovered. Nitre was joined with the diaphoretics, and fifteen grains of ipecacoanha directed to be taken in caſe of retching, or a bitter taſte of the mouth. He had a ſhort exacerbation at noon, preceded by a ſlight coldneſs of the extremities. He took the diaphoretics, but, having no nauſea, omitted the emetic. About an hour after the evening doſe, he retched and brought up ſome phlegm, upon which the emetic was given, and operating five or ſix times, brought off a quantity of bile. He was tolerably compoſed in the night.

The 3d. He complained chiefly, this morning, of a dull pain in the forehead. The fever was rather leſs; the tongue, before white, was now yellow in the middle, and whitiſh at the edges; the urine, before yellow, was this day red. At noon, the hands, for a ſhort while, were coldiſh, but the ſucceeding exacerbation was ſlight. In the evening he became very unquiet, could not be perſuaded to remain in bed, and walked about the room. Had two ſtools.

The 4th, the head-ach and fever continued; the face, by turns, was flushed and pale. At noon the head-ach and fever increaſed, without any preceding coldneſs. Cupping glaſſes were applied to the ſhoulder, and a few drops of blood diſtilled from the noſe, by which the head was ſomewhat relieved. He was quieter, in the night, than he had been throughout the day, and had five ſmall ſtools, between bed-time and morning. The attendants, by my direction, had ſearched daily for eruptions, but none were diſcovered till this night, when a bubo was found in the right thigh, and a carbuncle on the calf of the leg.

The 5th. He appeared this morning more compoſed. The fever ſlight, the tongue very white; but the thirſt exceſſive. The nitre was omitted. The water, or toaſt and water, were acidulated. At noon he ſuffered a very ſevere exacerbation. Another carbuncle was diſcovered on the left leg, and

in the evening, a ſecond bubo in the left thigh. He paſſed a very diſturbed night.

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The 6th day. The fever continued moderate all day, without any conſiderable exacerbation, but the patient was, at times, extremely heavy and ſluggiſh, and often ſhowed an inclination to retch. His medicines were continued as before, being a ſcruple of contrayerva powder, with confection of alkermes, every ſixth hour. In the evening he became worſe, and paſſed a very reſtleſs night, but ſweated profuſely in the morning. He had one ſtool. The urine was clear and of a ſtraw colour, in the evening.

The 7th. He was greatly fatigued and dejected after the ſweat. The ſecond bubo having decreaſed in the night, could hardly be perceived; the firſt was very little advanced. The firſt carbuncle became black in the middle yeſterday, and was ſpreading. A few drops of blood fell from the noſe. He had a very violent exacerbation at noon, attended with fluſhings in the face, anxiety, and the comatous diſpoſition, which declining at four o'clock, he remained tolerably calm till eight. The fever then returned, but was ſoon mitigated by a profuſe ſweat, which laſted near two hours. In the night he ſweated a ſecond time, and enjoyed ſeveral intervals of ſound repoſe.

The 8th. He was not ſo much relieved this morning, as was expected, by the ſweating; the fever ſtill remained, with much confuſion of head, and inclination to doze. The firſt bubo appeared to be double, the ſuperior gland round, and painful, the inferior (larger and of an oblong ſhape) hard, and indolent. The firſt carbuncle large, and the whole leg inflamed. The ſecond carbuncle not yet black, but a duſky matter oozed from it. At noon he had a very ſevere exacerbation, and ſweated twice in the night, but leſs profuſely than the night before.

The 9th. This morning, though exceſſively weakened by the repeated ſweats, he was manifeſtly better. Huxham's tincture with a little elixir of vitriol, was taken every ſix hours, inſtead of the former medicine. A ſlight exacerbation came on at the uſual time. The firſt doſe of the tincture was given at two o'clock, and he was ſoon after relieved by a gentle ſweat. He had a ſecond ſlight exacerbation in the evening, and ſweated in the night.

The 10th. He complained of head-ach and thirſt, but the fever was moderate. The firſt bubo advancing, and a copious diſcharge from both carbuncles. Had two ſlight exacerbations, which terminated in a gentle diaphoreſis. The body regular. He paſſed a tolerable night.

The 11th. About nine this morning, his legs became cold from the knees downward, and remained in that ſtate five hours, when a hot fit ſucceeded, accompanied with thirſt, inquietude, and oppreſſion at the heart.

Towards

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Towards evening he became gradually better, and had ſome repoſe in the night.

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The 12th day. This morning his legs again became cold, and a fever ſucceeded, as yeſterday, but the paroxyſm was much ſlighter and ſhorter. He paſſed a tolerably calm night.

The 13th, he had a return of his uſual paroxyſm, but it was over by noon. The bubo advancing, and much more painful; the carbuncles beginning to heal. He was in good ſpirits all the afternoon, but in the evening was dreadfully alarmed, by the ſudden conclammation of the women in an adjoining houſe, where a perſon had juſt expired in the plague. This incident effectually prevented repoſe, and made ſuch an impreſſion on his ſpirits, that he made urine above twenty times in the courſe of the night.

The 14th, he had no cold fit, but, at the uſual time of its acceſs, he became dull and heavy, and continued ſo till noon. A purging potion ordered for to-morrow.

The 16th. The potion operated three times yeſterday. The bubo beginning to be red externally, but was not very painful. Tincture of bark ordered to be taken twice a-day.

The 18th. He was recovering. The carbuncles continued to diſcharge, but the redneſs of the bubo was gone off. A bitter taſte in the mouth, and the tongue white. A doſe of rhubarb and calomel ordered for to-morrow, and an opiate at night.

The 21ſt. The rhubarb had operated five times. The bubo again appeared as if it would come forward. No complaint remained, except weakneſs.

This patient, in the fourth week, was haraſſed with an itchy eruption all over the body, more eſpecially on the ſcrotum and the glans. The rhubarb with calomel was repeated two or three times. The bubo came at length to maturation, and opened in the fifth week.

This caſe, though not attended at firſt by the more formidable ſymptoms, was one of thoſe which deviate irregularly from that form of the diſtemper which often terminates happily; and on that account, as well as from the ſeverity of the exacerbations after the 5th day, had at ſeveral times the appearances of imminent danger.

The eruptions did not appear till the 4th and 5th days; the profuſe ſweat on the morning of the 7th, did not alleviate, as uſual, nor did the ſubſequent ſweats prevent the return of very ſevere exacerbations; it was not till the

9th

9th day that the patient could be pronounced better. The paroxyſms uſhered in by coldneſs of the legs, on the 11th, 12th, and 13th, were alſo unexpected and irregular. The ſlow and variable progreſs of the bubo was no uncommon circumſtance, but was uſually met with where a leſs conſtant degree of fever attended, than in the preſent caſe. 1762. June.

Three other perſons were infected ſucceſſively in this diſtreſſed family, the father, the mother, and a ſiſter; and as the accounts brought me were more diſtinct than uſual, and directions more punctually obeyed, I have given a place to their caſes in detail.

CASE LXXVIII.

An old man, the father of the youth, Caſe LXXVII. found himſelf indiſpoſed, the thirty-firſt of May, with a nauſea and averſion to all kinds of food, and diſcovered a bubo in the right groin, which laſt circumſtance he concealed from the family for ſeveral days. On the 3d day he became feveriſh and reſtleſs On the 4th he was every way better, but finding himſelf worſe again the day following, he then owned the having a bubo.

The 5th day. The fever was ſlight. Powders compoſed of ſerpentary and diaphoretic antimony were ordered to be taken night and morning. The bubo appeared to be advancing, and a gum plaſter was applied to it, but the pain was ſo increaſed by the plaſter, that it remained on only a few hours. He was leſs feveriſh this night than the night before.

The 6th. He remained as yeſterday. The ſkin of the bubo reddiſh. Having had no ſtool for ſeveral days, a little ſtibiated nitre was joined to the powders.

The 8th. He had been hot and unquiet in the nights, and ſweated very little. Had one ſtool yeſterday, and three to-day.

The 10th. The bubo was advancing. The looſeneſs ſtill continuing, though inconſiderable, the nitre was left off, and he took only ſome contrayerva powder at bed-time. In the night, he was very reſtleſs, and had five ſtools.

The 11th. He was much ſunk by the looſeneſs. Ten grains of ſpec. diaſcord. were joined with the contrayerva, and after the firſt doſe he had no more ſtools. The fever in the night was very ſlight. The redneſs of the bubo, mentioned on the 6th, having been produced merely by the plaſter, had diſappeared, and the ſwelling had made very little advance, but it again looked reddiſh this day.

The 14th. He has had always a little fever in the nights. His medicines were powders with ſerpentary, inſtead of contrayerva.

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The 16th day. The bubo appeared diſpoſed to diſcuſs. Having had no ſtool for three days, ſome rhubarb and crem. tartar were ordered for to-morrow.

The 20th. He was recovering, but ſtill very weak. His wife and daughter were taken ill about this time, which obliged him to come abroad, and he continued coming daily for medicines for them. The bubo, after varying appearances ſeveral times, came at laſt to maturation, and opened about the 34th day.

This man had no fever till the 3d day after the appearance of the bubo, and no complaint except the loathing. The quantity of ſtibiated nitre did not exceed one ſcruple in the twenty-four hours, and yet it ſeemed to affect the bowels.

The variable and irregular progreſs of the bubo was not uncommon in old ſubjects.

CASE LXXIX.

The wife of the patient, Caſe LXXVIII, an elderly emaciated woman, who had conſtantly nurſed her ſon and her huſband in their illneſs, complained herſelf in the evening of the eighteenth of June, of a ſharp burning pain in each groin, but could perceive no ſwellings. She was feveriſh all night.

The 2d day. She was leſs feveriſh this morning, but towards noon the fever increaſed, together with the burning pain in the groins, and was accompanied with weight in the head, and drowſineſs. She took a diaphoretic powder, and continued nearly in the ſame ſtate all night.

The 3d. She was better for an hour or two this morning, but ſoon became feveriſh, and ſlightly comatous, as before. A ſwelling in the left groin was now viſible.

The 4th. The fever continued, and the comatous diſpoſition increaſed. The left bubo was advancing; the right was barely perceptible to the touch. In the evening, a carbuncle was protruded on the right thigh near the bubo. Her tongue was white. She was delirious at intervals, but for the moſt part lay in a ſtate of drowſineſs. Sinapiſms were applied in the night, after which ſhe became more lively.

The 5th. The fever ſtill continued, but her head was clearer, and ſhe was leſs drowſy. The carbuncle had become black in the middle.

The 8th. She had remained much the ſame as on the 5th day. The fever was very moderate, but ſhe ſtill conplained of confuſion in her head. She had not ſweated. The carbuncle was ſuppurating favourably. She had a ſtool by means of a ſuppoſitory.

The

The 12th day. She was recovering ſlowly, but the bubo remained hard and indolent. A bolus of rhubarb and crem. tartar, which ſhe took this morning, operated ſix times, and fatigued her greatly. An anodyne was given at night.

The 21ſt. She has been haraſſed with a looſeneſs ever ſince the 13th, from which ſhe was relieved by repeated doſes of rhubarb and diaſcordium. The right bubo was well advanced, inflamed externally, and ſoft.

The 24th. The bubo opened this day. Her recovery proved tedious.

So long a continuance of the comatous diſpoſition, was the only alarming circumſtance in this caſe; for their was neither vomiting, looſeneſs, nor coldneſs of the extremities. Though ſhe did not ſweat, the morning remiſſions were pretty diſtinct and regular. The burning pain, ſo long before the appearance of the bubo, was remarkable. The diarrhœa here ſeemed to be brought on by the purge; and indeed, in many caſes, the bowels ſeemed in ſo irritable a ſtate, that great caution was requiſite in the uſe even of the moſt lenient purges: but it may be remarked that the looſeneſs in the third week, did not retard, but rather promoted the progreſs of the bubo.

CASE LXXX.

A young woman, about twenty-five, of a delicate conſtitution, and ſubject for ſeveral years to a ſpitting of blood in the autumn, was alarmed on the ſixteenth of June, by a ſenſation of cold in the ſpine, which, after continuing ſomewhat leſs than an hour, went off without being ſucceeded by head-ach, or fever. The ſame ſenſation returned regularly about noon, for three or four days. She was the daughter of the old man (Caſe LXXVIII.) and had conſtantly been employed in coming twice a day from a conſiderable diſtance, to bring accounts of her brother and father, and to fetch medicines, while her mother remained at home to nurſe them. On the 3d day, ſhe perceived a ſmall ſwelling in the left axilla, but concealed it till the day following, and continued walking about as uſual.

The 4th day. The uſual chilly fit was this day followed by a confuſion in her head, and a pretty ſtrong fever. In the evening, ſhe loſt twelve ounces of blood from the arm. At bed-time, ſhe took a diaphoretic powder, but immediately threw it up, complaining that it burned her throat. The morning powder remained on her ſtomach.

The 5th. The fever was very moderate, but ſhe complained of her head, and of a pain a little above the ſhoulder. No tumor could be felt in the

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axilla. The tongue was white. She had ſeveral irregular exacerbations in the day, and alſo in the night. Some pectorals were joined with the diaphoretics.

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The 6th day. Upon examining the left ſhoulder, a ſmall hard tumor was diſcovered, about two fingers breadth above the poſterior part of the clavicle. The ſkin was not inflamed, but the tumor, as well as the whole of the left arm were very painful. She ſlept little in the night, but lay quiet.

The 7th. The menſes appeared, and ſhe remained tolerably calm till noon, when ſhe was ſeized with a violent pain in the left ſide. The pain of the tumor increaſed in the evening, darting ſometimes down toward the axilla, and ſometimes up toward the ear. She was very unquiet in the night.

The 8th. This morning, the right hand remained cold for near an hour. The fever was moderate till about ten o'clock, when it increaſed, and was attended by head-ach and perpetual inquietude. The pain in the left ſide was very troubleſome, and ſhe complained of much oppreſſion at her heart. There was no viſible diſpoſition to ſweat. The powders were continued, and a cordial ordered.

The 9th. The left parotid, which had begun to ſwell yeſterday, was more ſwelled and painful, and the face, throat, and neck ſwelling alſo, it was with difficulty ſhe could open her mouth, or ſwallow. A bliſter was applied to the neck, and a little nitre added to her barley water. She paſſed a bad night. The bliſter operated well, but had given much pain. She had one ſtool by means of a ſuppoſitory.

The 10th. The ſwelling of the face had rather diminiſhed ſince laſt night, but that of the parotid had increaſed. The cervical glands ſwelled, but were not inflamed externally. The axillary bubo had not advanced. She paſſed a hot, reſtleſs night; the pain of the tumor, as well as of the parotid, exceſſive, and the ſide very troubleſome.

The 11th. She remained as yeſterday. A ſimple poultice was applied to the ſwellings. She complained of head-ach, oppreſſion at the heart, and the fever ran high. The tumors, after the application of the poultice, were, in the night, rather leſs painful.

The 13th. She was all yeſterday much in the ſame way as on the 11th, but complained of pain in the right thigh and leg. On account of the increaſed ſwelling of the face and the parotid, it was with the utmoſt difficulty ſhe could ſwallow. The fever was high, and the inquietude inceſſant. Having had no paſſage for ſeveral days, a laxative glyſter was ordered which, operating once, greatly relieved her.

The 14th. The ſwelling of the face was ſomewhat leſs. A purging potion, taken this morning, operated ſix times, and fatigued her a good deal, but an opiate taken at bed-time procured her ſome repoſe.

The

The 15th day. The ſwelling being decreaſed, ſhe could ſwallow better than yeſterday. The axillary bubo and the tubercle had made no progreſs. The medicines were continued as before the purge. CHAP. I. 1762. June.

The 18th. The ſwelling of the face was conſiderably diminiſhed, and the other tumors leſs painful. The fever, in the nights, was very inconſiderable. Half a dram of rhubarb, and as much cream of tartar, ordered for to-morrow. This evening ſhe ſpit up a cupful of blood.

The 20th. The rhubarb had operated three times; and ſhe was recovering favorably; all the tumors were diſcuſſing.

The 25th. The purge was repeated yeſterday. For theſe three laſt nights ſhe has been feveriſh, and much haraſſed, by a violent itching all over the body, which was covered with red pimples. Hardly any thing remained viſible of the axillary bubo, or of the tumor. The purging powder was repeated once or twice; and ſhe gradually recovered, but was a long while in recovering her ſtrength.

The fever continued long, in this caſe, but there were few other formidable ſymptoms. The parotid did not ſwell till the 9th day, and her condition, for two or three days after, was rather alarming. The bliſter ſeemed to be of ſervice; but was a remedy ſeldom admitted. The purging ſo early in the diſeaſe, was alſo very ſeldom admitted, but ſeemed likewiſe to be of ſervice.

The tumor on the ſhoulder was one of thoſe ſpurious buboes mentioned before (Caſe XXXI). It differed from any ſpecies of furuncle or bile, the ſkin, as in the bubo, ſeldom ſhowing ſigns of inflammation till after ſeveral days.

CASE LXXXI.

A Chriſtian girl, about fourteen, was taken with febrile ſymptoms on the twenty-ſecond of June, and complained immediately of pain in the left axilla. She was not bled, but took ſome bezoar at night. Next day, a carbuncle was protruded on the left arm, after which the fever became more moderate, and was ſo ſlight through the three ſucceeding days, that ſhe was conſidered as being in a fair way of recovery.

On the 6th day, the fever increaſed, and a very painful tumor appeared under the left breaſt. From this time the exacerbations became more ſevere.

On the 7th, ſhe loſt the uſe of her tongue, and lay, for the moſt part, in a ſtate of drowſy ſtupidity.

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The 9th day. The above account was brought me. The fever ran high in the exacerbations; ſhe was ſtill comatous, and ſpeechleſs; ſhe had had no ſtool ſince the 3d, and had never ſweated. The carbuncle was ſuppurating; the axillary bubo had advanced very little, but the tumor under the breaſt was conſiderably enlarged, though ſtill hard, and not inflamed externally. Diaphoretic powders were ordered, and ſinapiſms directed to be applied to the feet, but the latter were not applied. By means of a ſuppoſitory, ſhe had three ſtools, which immediately relieved her head, and ſhe, in ſome degree, recovered the uſe of her tongue.

The 10th. She continued better all day, but at times was diſpoſed to ramble.

The 12th. She had a ſtool yeſterday. The fever increaſed a little in the night, but was very inconſiderable in the day, and ſhe had recovered both her tongue and her recollection. The axillary bubo was advancing.

The 14th. She was recovering. The axillary bubo opened the 13th day, and the carbuncle was diſcharging copiouſly. The tumor under the breaſt was advancing, but did not open till after three weeks. The axillary bubo proved tedious in the cure.

The alarming ſymptoms in this caſe came on late in the diſeaſe; for till the 6th day, all appearances were favourable. The head, from that time, was much affected; and the continuance of the comatous diſpoſition, and the loſs of ſpeech denoted danger. It may be remarked, that the head ſeemed greatly relieved by the operation of the ſuppoſitory.

The axillary bubo opened ſoon, that is, on the 13th day, the other tumor, or ſpurious bubo, did not open till the fifth week, which was much later than uſual. The axillary bubo opening ſo early, is the more remarkable, conſidering it was ſtill hard, and had made little progreſs on the 9th.

On the 9th, the carbuncle was ſuppurating; its progreſs not having been impeded by the increaſe of fever on the 6th, was a good ſign; for in general thoſe tumors, in bad caſes, remained dry, and undigeſted.

CASE LXXXII.

A Chriſtian youth, on riſing from bed the morning of the ſeventeenth, complained of pain in the right thigh, and, conceiving he had got the plague, reſigned all hopes of recovery. In about an hour after, he was ſeized with a weight in his head, an oppreſſion about the præcordia, and

his extremities became cold, without ſhivering. Two hours after, (11 A.M.) the hands were recovering their warmth, but the legs ſtill remained cold. CHAP. I. 1762. June.

A ſudorific draught with ſpirit. minder. pulv. contrayerva, &c. was ordered to be taken immediately, but in caſe of its not remaining on the ſtomach, the patient was directed to encourage vomiting, by drinking warm water. The draught was almoſt inſtantly ejected, together with ſome green bile, but the warm water produced little or no effect. In the afternoon, the fever increaſing, he became ſlightly comatous. In the evening, ten ounces of blood were taken from the arm; diaphoretic powders were ordered to be taken twice a day, and his drinks to be acidulated. He ſlept ſome hours in the night.

The 2d day, the fever was ſlight. The powders ordered to be taken every ſixth hour. The bubo had decreaſed. An exacerbation came on in the evening, but he was not very unquiet through the night.

The 3d, the fever was ſlight in the morning, but afterwards increaſed, and he became drowſy, and ſtupid. The bubo could hardly be felt by the finger, but the whole thigh was exceedingly painful. He paſſed a very unquiet night, but retained his ſenſes. Towards morning he ſweated profuſely.

The 4th, he found himſelf much better after the ſweat, and deſired food. The exacerbation of fever, this day, was very ſlight. He took no medicine.

The 5th. He remained as yeſterday, and had paſſed a tolerable night. The powders were repeated, and he ſweated a little towards morning.

The 6th. The fever increaſed this day, attended with thirſt, and inquietude. He had one ſtool. He paſſed a bad night.

The 7th. He ſtill continued feveriſh; the bubo was painful, and more ſwelled. The perſon who attended him, and who came for his medicines, falling ſick at this time, I received no further account for ſome days.

The 10th. The patient, theſe three laſt days, had had little fever in the day, but was hot and reſtleſs in the nights. The bubo which, on the 7th, had the appearance of coming forward, was leſs painful, and much diminiſhed. He took no medicine after this time. The bubo diſperſed.

There was nothing alarming in this caſe, after the firſt day. I imagined from appearances on the 7th, that the bubo would have come forward. It very ſeldom happened that the ſick, as in the preſent caſe, applied ſo early as the firſt day of the diſeaſe; I was therefore deſirous to try the effect of a ſudorific given immediately. The patient, ſo far as I could find,

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find, had no nauſea, otherwiſe I ſhould have ordered the warm water to have been given firſt. The ſweat early in the morning of the 4th day, was by no means forced, the ſame medicines were given in many ſimilar caſes without any effect, where a natural diſpoſition to that critical evacuation happened not to concur.

CASE LXXXIII.

The daughter of a Chriſtian, a girl about eighteen, of a plethoric habit, found herſelf indiſpoſed on Sunday the twentieth of June, but continued going about houſhold affairs till the Tueſday afternoon; when finding herſelf unable to reſiſt longer, ſhe took to her bed, and a bubo was found in the left axilla. The fever not being high, ſhe was not bled; and ſhe made no complaint of her ſtomach.

The 4th day. The fever was repreſented to me as very ſlight, and the bubo was advancing. Diaphoretic powders were ordered. She paſſed a tolerable night.

The 5th. The powder taken this morning was immediately thrown up again, and the vomiting continued, with ſhort intervals, till noon, when it was ſtopped by a ſaline efferveſcing draught. The fever roſe and declined irregularly. She was extremely unquiet in the night.

The 6th. The fever raged all day, in irregular exacerbations. She had one ſtool. The bubo as before.

The 7th. Her noſe had begun to bleed early this morning, and reduced the patient very low; other appearances were alſo alarming. Tincture of roſes, and pulv. ſtiptic. edinens. were ordered. In the evening, I was informed that ſhe had taken the medicines, but the hemorrhage continued inceſſant. The ſame medicines were repeated, but danger pronounced to be imminent. The bleeding ceaſed at 11 o'clock, and ſhe expired at midnight.

Appearances at the beginning were not formidable; and the vomiting on the 5th was ſoon ſtopped; but the immoderate hemorrhage, on the 7th, deſtroyed all hopes.

CASE LXXXIV.

The father of this girl, (Caſe LXXXIII.) was the ſecond perſon infected in the family, but concealed it, or rather miſtook his diſtemper at the beginning. He was an elderly man, ſubject in the ſpring and autumn to a ſevere cough, and ſpitting of blood, from an ulcer in his lungs of fourteen years ſtanding. On the twenty-firſt of June he obſerved two ſmall

pustules on the left leg, which gave him pain, but he was not otherwise indisposed, and, at that time, the distemper of his daughter had not declared itself to be the plague. On the 3d day, he complained of lassitude and head ach; but was not sensible of fever, or perhaps, from solicitude for his children, he was less attentive to himself. 1762. June.

The 4th day. He felt a pain in the left groin, and the pustules, having spread, were become much more painful; but, not being able to procure any one to fetch the medicines for his children, he was under the necessity of coming himself, the distance being above a mile from his house. When he came to me about noon, he was extremely fatigued, but said he was not otherwise much disordered. The tongue retained its natural colour, and the eyes were not muddy. He had not suspected the carbuncles, but was much alarmed by the pain in the groin, and when, upon searching, no swelling was discovered, he flattered himself the disorder was not the plague. The carbuncles were situated near one another on the outside of the leg, a little above the ankle. They were of the size of small hazel nuts, and, at the distance I viewed them, appeared like vesicles filled with a blackish coloured fluid. The skin round them was not so much inflamed as usual.

The 5th. He remained much as yesterday; but two other carbuncles appeared on the lower part of the left thigh.

The 6th. He sent me word that three new pustules were struck out on the upper part of the thigh; that they all gave him much pain, but, in other respects, that he was sensible of no material alteration. The poor creature, for fear of the messenger making mistakes, used to write the account of himself, as well as of his fellow sufferers, but I believe he had paid more attention to them, than to himself. This day proved fatal to his daughter.

The 7th. The fever was considerable; but he all along retained his senses. Three carbuncles were protruded on the right thigh.

The 8th. The first carbuncles were suppurating favourably, but the black crust, in the middle, had not yet cast off.

The 10th. The fever, these two nights, had been very slight. The bubo seemed disposed to suppuration.

The 12th. The bubo had made very little advance, and was still very hard. He had hitherto taken the diaphoretic powders, night and morning; but left them off from this day.

The 14th. The first carbuncles were healing; the others discharged freely.

The 18th. He was now, though weak, able to walk about. The bubo was advancing slowly.

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The 25th day. For theſe two or three laſt nights, he had been feveriſh from the pain of the bubo, which did not open till the fifth week. Soon after, he was attacked by his cough, and was long in recovering ſtrength.

The carbuncles were the firſt ſymptom in this caſe; for he did not find himſelf indiſpoſed otherwiſe, till the 3d day. They were unuſually numerous, and a freſh eruption of them on the 7th, was remarkable. They diſcharged copiouſly, and, perhaps, proved critical, for the patient never ſweated conſiderably. More formidable ſymptoms, as vomiting, delirium, coma, &c. were abſent.

CASE LXXXV.

The third perſon infected in this family, was the girl's brother, a ſlender youth, between nineteen and twenty. He was ſeized on the twenty-ſecond of June, two days after his ſiſter, and two buboes appeared, one in the left axilla, another in the left thigh. He was highly feveriſh, but not delirious, in the night.

The 2d day. He had been bled in the morning, but the fever was not abated. He ſhowed much diſpoſition to doze. His drinks were acidulated, and the uſual powders were ordered.

The 3d. He was better for a ſhort while this morning, but ſoon relapſed into the ſame ſtate as yeſterday. He ſweated very inconſiderably.

The 4th and 5th. The fever, and the ſleepy diſpoſition had continued much as before.

The 6th. He was apparently better; his head clearer, and the fever diminiſhed.

The 8th. The bubo had advanced very little. The exacerbations, though not ſevere, obliged him ſometimes to lye down, at other times he ſat out of bed. His ſtools were regular, and he perſpired in the night.

The 10th. He was recovering. The axillary bubo was diſperſing; the other advancing ſlowly.

The 14th. He was ſtill a little feveriſh in the nights, but had taken no medicine after the 10th day. From this time, he continued to come for medicines for others in the family The inguinal bubo advanced very ſlowly, and did not open till late in the fourth week.

CASE LXXXVI.

In the ſame family, another youth, about ſeventeen, of a delicate conſtitution, was taken ill on the twenty-fourth, two days after his brother, and a bubo appeared in the right thigh.

The

The 2d day. He was ſlightly feveriſh in the morning. Eight ounces of blood were taken from the arm, and diaphoretic powders were ordered. In the afternoon, an exacerbation came on, in which he became delirious and comatous, and the body was covered with a clammy ſweat.

The 3d. The exacerbation of yeſterday continued till the evening, he ſweated a little, and then became ſomewhat calmer, but paſſed rather an unquiet night.

The 4th. He was calm for ſome hours in the morning, but, the fever returning about noon, he again became comatous and delirious, alternately. He did not ſweat, as yeſterday, but a few drops of blood fell from the noſe. At night he vomited a good deal of bile, and the noſe bled a little a ſecond time. The bubo was a little advanced.

The 5th and 6th. He remained feveriſh and ſlightly comatous, with little intermiſſion. The ſkin remained dry.

The 7th. The fever was much the ſame, but his head was clearer. He loſt about one cupful of blood from the noſe. He took no medicine to-night, having no perſon to ſend for the powders.

The 8th. The fever was moderate, and he ſuffered little or no drought. The bubo had ſomewhat advanced. He paſſed the night more unquietly than ever.

The 9th. His noſe continued bleeding from morning till night. The fever was inconſiderable, but he was low, and reſtleſs, from the loſs of blood, and ſtrongly apprehenſive of ſharing the fate of his ſiſter. The tincture of roſes was given every hour. After the hemorrhage ceaſed, he became more calm, and enjoyed ſome hours of refreſhing ſleep.

The 10th and 11th. He had been pretty well in the day time, but always feveriſh in the night, and complained of confuſion in his head. He ſweated little or none.

The 13th, he continued mending. The bubo had made little progreſs.

The 16th. The bubo had enlarged, was more painful, and tending manifeſtly to maturation.

The 19th. He had been ſubject to feveriſh heats in the nights, which ſeemed to be owing to the pain of the bubo.

The 23d. The bubo opened this day, but diſcharged very little.

The long continuance of the exacerbation which came on the 2d day, and its return the 4th, were alarming. But the moſt remarkable circumſtance was the ſeeming relief, from the bleeding at the noſe, which in general was a dangerous ſymptom.

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His medicines were taken pretty conſtantly, but were only a diaphoretic powder night and morning.

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CASE LXXXVII.

The laſt perſon infected in this family, was the mother; a middle-aged woman, of a plethoric habit, and much ſubject to immoderate uterine hemorrhages. On the twenty-eighth of June, ſhe found herſelf indiſpoſed in the morning, and was at times ſenſible of a ſhooting pain in the left thigh; but being engaged in the care of her huſband and her children, ſhe continued walking about, till the afternoon of the day following, when ſhe was obliged to take to her bed.

The 3d day. The fever, which in the night had not run high, was now very moderate; but ſhe complained of head-ach, and a ſlight nauſea. The bubo was very painful.

The 5th. The exacerbations in the night had been pretty ſevere, but ſhe always retained her ſenſes. In the day-time the fever was ſlight. Her ſtools were regular. A ſecond bubo made its appearance in the right thigh.

The 6th. The menſes came on regularly, and flowed copiouſly.

The 8th. The fever had greatly diminiſhed. The firſt bubo was advancing.

The 10th. The menſes ſtill continued. The fever had increaſed theſe two laſt nights, owing probably to the bubo, which began to inflame externally.

The 13th. The bubo was advancing.

The 17th. The bubo was ripe for opening.

This woman took no other medicines than a few contrayerva powders. The ſymptoms, in general, were ſlight. The eruption of a ſecond bubo, on the 5th day, was not expected; and the copious flow of the menſes was attended with no detriment. It may be remarked, that they had omitted bleeding in this caſe, not from choice, but from not being able to procure any one to perform the operation.

CASE LXXXVIII.

July.

A Chriſtian youth, who in the preceding week had loſt two brothers in the plague, was himſelf taken ill the eighth of July; a bubo immediately appeared in the right thigh, and he was bled.

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The 2d day, the bubo was painful, and more ſwelled. He remained tolerably calm till night, when the fever ran high, attended with much inquietude.

The 3d. This morning his eyes were red, and muddy; the heat and thirſt were moderate; but he was much inclined to doze.

The 5th. He rambled in the night exacerbations, and was dull and ſleepy in the day. The bubo was little advanced. At night he became worſe than ever, the fever roſe high, accompanied with delirium, and much inquietude.

The 6th. The fever ſtill continued, the ſkin was dry, and he was comatous. The bubo had advanced a little. He had a ſtool this day, for the firſt time in his illneſs. He ſuffered a ſtrong exacerbation at night, which declined towards morning, with a plentiful ſweat.

The 7th. He was in all reſpects better in the morning. A gum plaſter was applied to the bubo, which was evidently advancing. The night exacerbation came on earlier than uſual, but was leſs violent, and he again ſweated profuſely.

The 8th. When he awoke this morning he complained of hunger, and eat ſome boiled mutton.

The 10th. He had been a little feveriſh for theſe two nights, from the pain of the bubo, which ſince yeſterday had been very painful, and was much inflamed. A poultice would have been better than the plaſter, but he preferred the latter as leſs troubleſome.

The 12th. The bubo opened laſt night, and diſcharged much matter.

The 15th. He continued to recover.

The 17th. The patient had had the itch in the preceding winter, which returned again about this time, and proved very troubleſome.

The 21ſt. He took a purge.

The medicines till the 8th were the contrayerva powders twice or thrice a day, and acidulated drinks. He afterwards took a few doſes of bark.

The ſymptoms at the beginning were not alarming; but from the 3d, till he ſweated on the 6th day, there was ground for apprehenſion. The manifeſt alteration for the better on the 7th, encouraged hopes, and the ſweat in the ſucceeding night appeared to be critical.

The bubo made a progreſs uncommonly rapid after the 6th day, for it was very unuſual to ſee that tumor open ſo early as the 11th. The common

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poultice gave much leſs pain than the plaſter, but many, on account of keeping the former more eaſily on the part, preferred the plaſter.

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Coſtiveneſs often appeared to be of no material conſequence; in the preſent caſe, the patient had no ſtool till the 6th day; but where the head was much affected, an opening medicine, of eaſy operation, was certainly adviſable.

CASE LXXXIX.

A robuſt man, about thirty, was, on the ſecond of July, taken with a ſhivering, followed by heat and thirſt, and a bubo appeared in the right thigh. The next day, the fever continuing, he was bled. On the 3d, a looſeneſs came on, and, at night, he vomited once.

The 4th day. The looſeneſs continued; he was very reſtleſs, faint, and low; a double bubo appeared in the right thigh. He did not take the medicines ordered.

The 6th. The looſeneſs diminiſhed yeſterday; he took a contrayerva powder at bed-time, and had no ſtools in the night. This morning his lower extremities were cold, he was very reſtleſs, and complained of conſtant oppreſſion at the præcordia. I ordered another powder, but conſidered his ſtate to be almoſt deſperate. The powder was given in the forenoon, ſoon after which the legs recovered their natural warmth, and the heat univerſally ſeemed hardly feveriſh. At night he took a ſecond powder, but became very reſtleſs, and his extremities, till towards morning, were for the moſt part cold.

The 7th. He had no remarkable exacerbation this day. The buboes were advancing, though very ſlowly. The inquietude in the night was leſs than the preceding, but the extremities for the moſt part remained quite cold.

The 8th. He appeared in all reſpects to be better. The fever was very moderate, and the body regular. No material alteration in the tumors.

The 10th. Theſe two laſt nights, the body when touched felt cold, and did not recover warmth till towards morning; but it was remarkable that when theſe cold fits went off, no perceptible febrile ſymptoms ſucceeded. He continued all day tolerably well, though very weak. The cold fit in the night was ſlighter.

The 11th. He was unuſually feveriſh all day, but eſcaped the cold fit at night.

The 14th. He had been a little feveriſh laſt night, but has had no cold fit ſince the 10th. The tumors, particularly the ſecond, gave very little pain.

The 16th. The firſt bubo was advancing.

The 18th day. The patient, though very weak, was able to come for his medicines. From the 10th, the bark had been given with the diaphoretic powders, which were continued to the 20th. The firſt bubo was ſoft and inflamed externally; the ſecond gave no ſigns of advancing, but remained hard and indolent. CHAP. I. 1762. July.

The 26th. The right bubo opened this day, but diſcharged inconſiderably; the ſecond bubo gradually diſcuſſed.

The long continued coldneſs followed by little or no fever, was remarkable in this caſe. It's being preceded by a looſeneſs, and accompanied with conſtant inquietude, and oppreſſion at the heart, led me, on the 6th, to conſider the patient's condition as deſperate. In the ſequel, this coldneſs became leſs and leſs alarming, not being attended by coma, and the patient enjoying long intervals of calm.

CASE XC.

In the houſe of a Turk merchant, where ſeventeen perſons, out of twenty-two infected, had died in the month of June, a Circaſſian lady, about three and twenty, was, on the eighth of July, taken with a ſlight ſhivering, followed by a ſmart fever; a carbuncle appeared near the nipple of the left breaſt, and a bubo in the left axilla. In the evening ſhe was bled, but paſſed a hot reſtleſs night. The fever continued all the following day, and a ſecond bubo was protruded in the left thigh.

The 3d day. The fever, which had been high in the night, was but little abated this morning, and the head-ach, drought, inquietude, anxiety, and great dejection of ſpirits ſtill continued. A diaphoretic cordial was ordered, and her drinks were acidulated. She paſſed a very feveriſh night.

The 4th. She remained much as yeſterday; the head was rather more confuſed. The carbuncle was ſpreading, and very painful; the buboes were little advanced. She ſweated for near an hour, at ſun-ſet, but was very much diſturbed in the night.

The 5th. She was calmer this morning. Had two ſtools. The carbuncle ſuppurated a little; the axillary bubo advancing; the inguinal remained as before. In the night ſhe had ſuffered a ſevere exacerbation, which laſted two hours, and terminated in a copious ſweat.

The 6th. She continued better all day. At ſun-ſet, ſhe ſweated again, and a third time early in the morning. The cordial was continued regularly.

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The 7th day. She was manifeſtly better, but the tumors had made very little progreſs. She ſweated in the night.

The 8th. She continued mending. Having had no ſtool for three days, a ſuppoſitory was ordered, but ſhe had paſſage before it was applied.

The 10th. She remained tolerably eaſy in the day-time, and was only a little feveriſh in the nights. The axillary bubo was painful, but advanced very ſlowly. The inguinal ſeemed to be diſcuſſing.

The 12th. She was recovering. The axillary bubo had advanced very little. The carbuncle was ſtill diſcharging.

The 15th. The bubo was ſtill painful, but had decreaſed in ſize. The carbuncle healing faſt. Both buboes diſcuſſed. I adviſed a purge or two, but none was taken, and the patient recovered favourably.

The lady had a child, of two years old, at her breaſt, which was weaned the firſt day, and eſcaped the infection.

The febrile ſymptoms, in this caſe, ran high at the beginning, but a tendency to ſweat appeared as early as the 4th day, and the repeated ſweats on the ſubſequent days were certainly critical. The quantity of contrayerva powder in the mixture did not exceed two ſcruples. Dulcified ſpirit of nitre was generally an ingredient in the cordials, and proved very grateful.

CASE XCI.

A young man, a Chriſtian, found himſelf indiſpoſed the morning of the ſecond of July, and a bubo appeared in the left thigh; he complained alſo of pain in the right groin, but no ſwelling was perceptible there. The fever continued all day, accompanied with a conſtant nauſea.

The 2d day, the fever was very moderate in the morning, but the nauſea ſtill continued. He was ordered to be bled, and to provoke vomiting by repeated draughts of warm water; but both orders were neglected. He had a pretty ſevere exacerbation in the evening, and bled at the noſe, loſing near a cupful of blood.

The 3d. Early in the morning, the bleeding at the noſe again returned, and continued till noon. Spirit of vitriol with conſerve of roſes to be mixed with water, and bark joined to the contrayerva, were the medicines ordered. The bleeding again returned in the evening, and continued till mid-night, after which he became tolerably compoſed.

The 4th day. The fever was very moderate in the morning, and he found himſelf better in all reſpects, weakneſs excepted. The buboes ſeemed to

advance. The bleeding at the nose returned about midnight, and continued most part of the night.

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The 5th day. He was sunk by the hemorrhage, but the other symptoms appeared to be mitigated. The proportion of bark was increased. Two carbuncles were protruded on the right leg. The bleeding at the nose returned at noon, and continued till late at night, after which he remained till morning remarkably quiet.

The 6th. The fever was very moderate in the morning; the first bubo was advancing. In the evening, the fever increased, and he was delirious all night.

The 7th and 8th. The fever, accompanied with delirium, and much inquietude, still continued with very short remissions, and the skin always remained dry.

The 9th. His condition was much the same as on the two last days, he never sweated, nor did he recover his senses in the remissions.

The 10th. The fever was very little diminished, but he was more composed and sensible than for these three days. He complained of excessive head-ach, and of pain from the buboes, both which were advancing. Having had no passage for seven days, a laxative was ordered, but not taken. He passed the night more composedly than for some time past, and sweated a little.

The 11th. He remained calm all day, and had one stool. The fever increasing in the evening, he passed a restless night.

The 12th. He was better to-day. A few drops of blood fell from the nose, in the morning. He had one stool.

The 14th. Both buboes were soft and inflamed externally. Little or no fever remaining.

The 18th. The bubo on the right side had opened on the 16th; that on the left opened this day.

The 20th. The buboes discharging. Two small furuncles, not of pestilential appearance, struck out near the left bubo.

This was an irregular case, and, in respect to the long duration of the hemorrhage, a singular one. The quantity of blood lost from the 2d to the 5th day, inclusive, was very considerable; but though the patient was weakened by the loss of blood, the other symptoms appeared to be mitigated, which is the reverse of what is usually observed in the plague. The patient was of a temperament not remarkably plethoric, but my memoranda

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are defective in not mentioning whether he was at other times ſubject to bleeding at the noſe. From the 6th to the 11th, his condition was alarming: but the alteration on the evening of the 6th day was not altogether unexpected, for the eruption of the carbuncle the preceding day, left room to ſuſpect the calm in the morning of the 6th. The progreſs of the buboes, after the 10th, was remarkably quick.

CASE XCII.

June. A boy about ſeven years old, the ſon of the Cady of Aleppo, was, on the twenty-fifth of June, ſeized with a convulſive fit, preceded by a cold ſhivering, and followed by a fever and looſeneſs, both which continued throughout the night. Next day he had a return of the convulſive fit, not preceded by ſhivering, but the fever and looſeneſs were increaſed.

The 3d day. By the accounts brought me this morning, the fever had declined very little, and the boy appeared heavy and ſtupid. The looſeneſs continued. Search had been made for eruptions, and, as I was aſſured, none were diſcovered; but, ſtrongly ſuſpecting the caſe to be peſtilential, I deſired he might be more carefully examined, and ordered, in the mean while, the white decoction for ordinary drink. In the evening I was informed a carbuncle had been diſcovered on the hind part of the right leg, and that the boy appeared to be in all reſpects much worſe than in the morning.

The 4th. He died this forenoon. He had at firſt taken ſome bezoar, but took nothing afterward except the white decoction.

This is almoſt the only inſtance, to the beſt of my recollection, I met with of a convulſive fit attending the firſt attack of the plague. The looſeneſs, and continuation of the fever, without remiſſions, or with remiſſions in which the head was not relieved, denoted danger.

CASE XCIII.

A Jewiſh girl, about fifteen, who had been labouring under a double tertian fever for a fortnight, had her regular paroxyſm on the twenty-ſixth of June, (the 15th day of her ſickneſs) at the uſual time; but in the hot fit, a bubo was protruded in the right axilla. The fever declined with a ſweat, much leſs conſiderable than uſual, but the head-ach remained, and ſhe complained of great oppreſſion at the heart.

I ſaw her no more.

This

This defective caſe furniſhes an inſtance of the plague's joining itſelf to another diſtemper; and as I had few opportunities of ſeeing ſuch caſes, I regretted the having ſeen no more of this girl. CHAP. I. 1762. July.

CASE XCIV.

A youth, about twenty, was, on the twenty-third of July, ſeized with a ſtrong fever, attended by a vomiting. His caſe being ſuſpicious, he was ſearched, but no eruptions were diſcovered. Scarification behind the ears was ſubſtituted for bleeding. He paſſed a reſtleſs night. Next day the fever continued, and he vomited ſeveral times.

The 3d day. The fever increaſed and declined in irregular exacerbations; but the inquietude was inceſſant, even in the remiſſions, and there appeared no diſpoſiton to ſweat. A bubo was diſcovered in the left thigh. The diaphoretic powders were ordered. He paſſed a bad night.

The 4th. The comatous diſpoſition was increaſing.

The 6th. No accounts were brought me from his houſe yeſterday, or this morning, but I learned from another quarter that the patient died in the night.

The above was a very common form of the diſeaſe, and generally proved fatal. Vomiting, where it continued beyond the firſt day, was always a dangerous ſymptom. The dryneſs of the ſkin, and no apparent mitigation of the diſeaſe in the morning of the 3d or 4th days, were alſo circumſtances indicative of danger. But to all this exceptions occurred, and the following caſe ſupplies an example.

CASE XCV.

A girl, about twenty-one, the ſiſter of the youth (Caſe XCIV.) was taken ill the twenty-third of July, at the ſame time with her brother. The fever, from the beginning, was violent, and accompanied not only with frequent vomiting, but likewiſe, at times, with a weight in the head, and a ſtrong propenſity to ſlumber. She had neither been bled, nor taken any medicine.

The 3d day. The fever had ſomewhat decreaſed, but the retching continued. A carbuncle was diſcovered near the bend of the left arm. A diaphoretic powder, which was adminiſtered at bed-time, did not remain on the ſtomach, and ſhe paſſed a bad night.

The 4th. She was in much the ſame ſtate as yeſterday morning, and had not ſweated. A bubo appeared in the left thigh. The retching was not ſo frequent, but, by way of precaution, a ſcruple, of ſalt of wormwood,

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with lemon juice, was ordered to be taken, before attempting the diaphoretic powders.

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The 9th. I heard no more of her till this day, and could collect no satisfactory account of what had passed in the interval since the 4th. Her nights had been always more or less feverish, and she had sometimes sweated, but never profusely. All appearances were now favourable, and the bubo was advancing to maturation.

The first attack, and the condition of the patient during the three first days, were rather more alarming than in the brother's case, but the event proved different. In both cases, the buboes were unusually late in making their appearance.

In comparing these two cases, it may be remarked, that in the one, the comatous disposition increased on the 4th day; in the other, the comatous disposition seemed not to have increased, but rather to have decreased, after the 3d, and, if there was no material alteration for the better on the 4th day, there was no augmentation of bad symptoms.

CASE XCVI.

A girl about eighteen, complained on the seventeenth of July, of a shooting pain in the right thigh, but was not otherwise indisposed, and passed the night without any perceptible fever. Next day, she suffered a succession of cold and hot fits all forenoon, but the fever became continual in the afternoon, and she was bled. She retched several times after the bleeding, but it was only a faintish sickness. She was hot, and restless in the night, and sweated a little in the morning.

The 3d day. The fever ran high in the day, and she was very unquiet in the night. The bubo remained as at first. Her medicines were diaphoretic powders with the bark, in composition.

The 4th. She bled at the nose in the forenoon, and had four stools in the course of the day. In the night she was extremely unquiet, and the menses appeared some days before their time.

The 5th. She was in all respects worse; she suffered much inquietude, oppression at the heart, and faintness. The fever was variable, and there was no considerable sweat. The menses stopped in the night. She was very restless, but retained her senses.

The 6th. She remained much in the same state as yesterday morning. The bubo had somewhat advanced. From this time she took no medicine, and I heard no more of her for some days.

The

The 13th day. She had ſweated profuſely on the 8th day, after which ſhe grew gradually better. The bubo was tending faſt to maturation.

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The bubo, in this caſe, was the firſt ſymptom. The bleeding at the noſe, and the untimely appearance of the menſes were, in general, unfavourable circumſtances. The ſweat on the 8th day, appears to have been critical, and from that time the bubo advanced rapidly.

CASE XCVII.

A young man, found himſelf indiſpoſed the morning of the twelfth of July; in the afternoon, he vomited ſeveral times, and a bubo appeared in the left thigh.

On the 2d day, he was bled, but remained feveriſh all day, and in the night became very reſtleſs. He ſweated a little towards morning. The bubo had enlarged.

The 3d. The fever was much the ſame as yeſterday. He was reſtleſs in the night, and again ſweated early in the morning, though not conſiderably.

The 4th. The head-ach increaſed. He had a ſevere exacerbation in the afternoon, and was worſe than ever in the night. A carbuncle was protruded near the bubo.

The 5th. The fever was high all day, accompanied with much thirſt. His drinks were acidulated, and the contrayerva powders, which he had taken twice a day, were continued. He was tolerably compoſed this night, and ſlept ſome hours.

The 6th. He was every way better through the day; but, in the evening, the fever increaſed, and he was by turns delirious, and comatous moſt part of the night; towards morning he ſweated a little, as on the 3d. He took a powder every eighth hour.

The 9th. He was tolerably calm in the morning, and in the afternoon became remarkably better.

The 8th. He found himſelf well enough, from this day, to come for his own medicines.

The 12th. He continued, from the 8th day, to recover. He had been ſlightly feveriſh in the nights, but was always relieved by a ſweat in the morning. The bubo made a very ſlow progreſs.

The 19th. The bubo was advancing ſlowly.

The attack here was accompanied with vomiting, but it ceaſed of itſelf the firſt day. Though he did not ſweat profuſely, there was a kindly tendency to perſpire, which was, in general, a good ſign.

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CASE XCVIII.

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A Chriſtian youth, about eighteen, was, on the morning of the twentieth of July, ſeized with a fever, accompanied with violent head-ach, and a vomiting that continued till night. A bubo being diſcovered in each axilla, it was thought better to omit bleeding.

The 2d day, the fever continuing high, with much diſorder in the head, he was ordered to loſe eight ounces of blood from the arm, and to take the diaphoretic powders. The vomiting returned after the bleeding, but ceaſed upon taking one of the powders, and he remained calm till midnight. The vomiting then returned, with ſtrong exacerbations of fever, and he lay comatous the remainder of the night, except when rouſed by the retching.

The 3d. This morning, there was no mitigation of ſymptoms. Salt of wormwood was given to check the vomiting, and ſinapiſms were ordered on account of the coma. The coma was ſomewhat relieved, but the vomiting did not ceaſe till night, and was then ſucceeded by a diarrhœa, which haraſſed him till morning.

The 4th. The coma increaſed; and, even in his beſt intervals, the head remained greatly confuſed, and he faltered in his ſpeech. In the forenoon, he had a profuſe hemorrhage from the noſe. In the evening all appearances were bad, he was delirious moſt part of the night, and had tremors in all his limbs.

The 5th, he remained much in the ſame ſtate, but his tongue was more affected, ſo that he could not articulate. At night, the bleeding at the noſe returning, continued ſeveral hours. No medicines had been taken ſince the 3d.

The 6th. Great ſtupor, and his ſtrength was exhauſted. He died in the night.

A vomiting protracted, as in the preſent caſe, was almoſt conſtantly a fatal ſymptom; but when combined with coma, looſeneſs, and hemorrhage, no hopes of recovery remained. In regard to hemorrhages, they almoſt conſtantly portended danger, where they appeared later than the 3d day.

CASE XCIX.

A ſprightly boy, about ten years old, the ſon of an eminent Turk merchant, felt a pain in the right thigh, the thirteenth of July, and, upon ſearching, diſcovered a ſmall bubo, but not finding himſelf otherwiſe indiſpoſed, and being unwilling to alarm his father, he concealed it till the afternoon of the

the day following, when he was obliged, by the increaſe of febrile ſymptoms, to confeſs his ſituation. He was extremely reſtleſs the ſecond night, and complained of pain in the right parotid. CHAP. I. 1762. July.

The 3d day. He had four or five ſtools in the morning. Some medicines were ordered, but not taken. He continued highly feveriſh, and had two more ſtools in the night.

The 4th day. He was tolerably calm till noon, when he had a ſlight exacerbation. After two or three looſe ſtools, he was prevailed on to drink the white decoction, and paſſed a pretty good night.

The 5th. He continued better all day; the looſeneſs diminiſhed. The tumors had made no advance, but were ſtill painful. He left off the decoction.

The 6th. He had little or no fever; the looſeneſs ceaſed, and he grew impatient for improper food.

The 7th. The parotid was more ſwelled, and more painful. From this time, though he paid very little regard to diet, he continued to recover.

The 15th. The parotid had diſperſed; the inguinal bubo remained ſtill painful, but had made no progreſs. The bubo alſo diſperſed ſlowly, but he could not be prevailed on to take a purge.

The parotids more ſeldom came to ſuppuration, than any of the other buboes. The ſymptoms, in this caſe, after the 3d day, were not alarming, and the looſeneſs ſeemed rather to be of ſervice.

CASE C.

A ſlave boy, in the ſame family with the patient (Caſe XCIX.) and of the ſame age, was taken ill the eighteenth, five days after his young maſter. In the night, the fever roſe to a great height, and the boy lay in a ſtate of drowſy ſtupor till morning, when a bubo was diſcovered in the right thigh.

The 2d. The account brought me this morning was, that the fever ſtill continued, notwithſtanding he had been cupped; that he lay for the moſt part comatous, but at intervals revived, and then wept bitterly, declaring he was certain he ſhould never recover. As he complained much of thirſt, his drinks were acidulated with ſpirit of vitriol. He was delirious all night.

The 3d. He lay ſunk in a coma, but the febrile heat was leſs. Sinapiſms being applied to the feet, he became more ſenſible, and in the ſubſequent

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ſequent exacerbations, in the night, though he ſometimes rambled a little; in general he retained his ſenſes. Towards day-break he had four ſtools.

The 4th day. The fever was very moderate, and he thought himſelf better, but he had ſtill the drowſy diſpoſition, and the looſeneſs, by which that diſpoſition ſeemed to be increaſed, ſtill continued. Some reſtringent powders were ordered, to check the diarrhœa; but he took only one doſe. He continued tolerably calm, till three or four in the afternoon, when a moſt alarming exacerbation came on, and he expired at night.

The early appearance, and continuance of coma, in this young patient, denoted danger from the 2d day. He had no diſpoſition to ſweat; and the looſeneſs ſunk him inſtead of relieving him.

This caſe I conſider as belonging to that claſs, wherein no medicine hitherto known can be of ſervice.

CASE CI.

A Turkiſh lady, of fifteen, was, on the nineteenth of July, ſeized with a violent fever, a bubo appeared in the right thigh, and the fever did not decline till next morning.

The 2d day, though the fever, by the accounts brought me, appeared to have ſubſided, the patient remained extremely unquiet, complained of great internal heat, and at times talked deliriouſly. Bleeding was adviſed, but not complied with; in the afternoon her hands and feet became coldiſh, and did not recover warmth till morning. She was delirious, and talked inceſſantly, all night.

The 3d. This morning ſhe lay comatous, and when rouſed was not ſenſible. The body was moderately hot, but her extremities rather cold. Sinapiſms were applied to the feet, which relieved the head; but ſhe complained much of internal heat, and her extremities ſtill remained cold. Her drinks were acidulated, and a ſimple cordial with ſpirit nitr. dulc. was ordered. The ſinapiſms were repeated at bed-time, and, though reſtleſs, ſhe paſſed this night with leſs delirium than the preceding. Her extremities were alternately hot and cold all night.

The 4th. She complained as before of internal heat, at times rambled a little, and her extremities were cold. Was unquiet the fore part of the night; but, after ſweating a little, became more compoſed.

The 5th. She had entirely recovered her ſenſes, the internal heat was leſs, the extremities became cold ſeveral times in the forenoon, but recovered their warmth in a few minutes. In the afternoon ſhe ſuffered an exacerba-

tion, attended with a ſlight delirium. Half a drachm of contrayerva powder was given in a draught. The fever increaſed in the night, and ſhe ſweated profuſely. CHAP. I. 1762. July.

The 6th day. She was quite calm in the morning, though weakened by the ſweat, and continued eaſy all day, without any return of cold in the extremities. The bubo, which yeſterday ſhowed ſome ſigns of advancing, was leſs painful and leſs ſwelled. Her chief complaint was of pain in the ſoles of the feet, occaſioned by the ſinapiſms.

The 7th. The ſame medicine, as on the 5th, was repeated at bed-time, and ſhe paſſed a quiet night, without ſweating; ſhe remained well all day, but would take no medicine, except the cordial preſcribed at the beginning.

The 9th. She had been ſlightly feveriſh theſe two laſt nights, for an hour or two, but in the day time had been tolerably well. The bubo was diſcuſſing.

She recovered ſpeedily, and though not purged, appeared to ſuffer no inconvenience from the diſcuſſion of the bubo.

This caſe was remarkable on account of the coldneſs of the extremities, which I do not recollect obſerving before under the like circumſtances. Appearances, during the firſt three days, were very alarming, and the favourable turn the diſtemper took on the fifth, was altogether unexpected. The ſweat appeared to be compleatly critical, and, I think, was not forced; for little could be aſcribed to the ſmall quantity of the diaphoretic medicine, which, however, got credit for it. Where the buboes diſcuſſed, I always adviſed purging in the decline of the diſeaſe; but, as I have remarked before, the advice was often neglected, without ill conſequences.

CASE CII.

A Chriſtian youth, about fifteen, was ſeized with febrile ſymptoms, the morning of the twenty-firſt of July, a bubo appeared in each axilla, and he ſoon became comatous. He was bled in the afternoon, and at night took a diaphoretic powder. He was very unquiet all night, and vomited ſeveral times.

The 2d day. The fever, in the forenoon, was perpetually varying. The patient was ſometimes drowſy and ſtupid, at other times ſenſible, and complained of great oppreſſion about the heart. He had little thirſt, and his extremities were at times cold, even in the febrile exacerbations, while the inquietude remained inceſſant in the ſhort remiſſions. He had vomited ſeveral

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veral times in the morning, but water now remained on his ſtomach. In the evening he grew worſe, and paſt a moſt reſtleſs night.

The 3d day. A looſeneſs ſupervened in the morning, and in the courſe of the day the body became livid. He expired in the evening.

This caſe belonged to that claſs which proved invariably fatal, and which I ſuſpect admits of no aſſiſtance from medicine. At that period of the ſeaſon this form of the diſorder was certainly, in proportion, rare; for we very ſeldom heard of perſons dying ſo early as the 3d day.

Whether the bleeding here did not do harm, may be doubted; many reaſons may plauſibly be urged againſt that evacuation; but on comparing the phenomena in this and ſimilar caſes, with caſes wherein bleeding had been omitted, I confeſs, I often could not diſcover any material difference.

CASE CIII.

A Chriſtian woman, in the evening of the twentieth of July, was ſeized ſuddenly with a ſhivering, and complained of pain in the left thigh. She grew feveriſh at night, and next day was bled. The fever was variable, increaſing and declining irregularly. She had ſeveral looſe ſtools daily.

The 3d day. The above account was received from the huſband this afternoon, only that he had forgot to mention the looſeneſs. In the evening he returned, in order to rectify this omiſſion, and to acquaint me that the patient, in his abſence, had an attack of the fever ſo violent, that the women had cauſed her to be bled at both arms, at the ſame time. She now, he ſaid, lay in a ſtate of total inſenſibility, and ſeemed ſo extremely weakened by the loſs of blood, and the looſeneſs, that he conceived it impoſſible for her to recover. A cordial was ordered, with a little diaſcordium, to be taken according to circumſtances. She was relieved by the cordial, and the looſeneſs alſo being checked, ſhe paſſed a tolerably quiet night.

The 4th. She remained low all day, the fever returning irregularly in ſhort exacerbations, and ſhe had one or two darkiſh coloured ſtools. In the night, becoming extremely ill, the women were alarmed by the remarkable ghaſtly alteration in her countenance.

The 5th. She ſweated a good deal at noon, and her hands became temperately cool; but the fever ſoon returned, and a ſecond bubo was protruded near the firſt. She was reſtleſs and delirious in the night.

The 6th. She was compoſed for a ſhort while, in the morning, but, the exacerbations returning, ſhe was by turns delirious, and ſenſible. She had three ſtools like thoſe on the 4th day.

From

From this time my memoranda are defective, but I find the woman recovered, and that both buboes opened on the 17th day. CHAP. I. 1762. July.

This caſe furniſhes an extraordinary inſtance of bleeding at both arms at once, ſo late as the 3d day, notwithſtanding the patient had been bled the day before; and, conſidering a looſeneſs alſo attended, it was not to be wondered that ſhe ſhould be alarmingly exhauſted by the ſudden evacuation.

Large evacuations of blood at the beginning, I knew had been recommended, and even practiſed in that country, but this being the only inſtance that fell under my own obſervation, I the more regretted the defect of my memoranda, which leaves a chaſm in the progreſs of the diſeaſe, from the 6th, to the 17th day. Two circumſtances, however, may be remarked, namely, that the woman recovered, and that the buboes came ſooner to maturation than was to be expected in her ſtate of inanition.

CASE CIV.

A Chriſtian lad, about fifteen, had gone to the gardens on a party of pleaſure, the fourteenth of July, and returned home in the evening with a violent head-ach, a fever, and a bubo in the right thigh. In the night he became delirious, and was very reſtleſs.

The 2d day. He had recovered his ſenſes in the morning, but the fever was ſtill high, and the inquietude continued. He complained of nauſea, but did not vomit, though he drank warm water. About noon he became ſenſeleſs; the inquietude and writhing of his limbs increaſed, and he continued in that ſtate all night. The medicines ordered had not remained on the ſtomach, though he did not vomit at other times.

The 3d. He remained nearly in the ſtate deſcribed above. In the courſe of the day, ſome dark coloured petechiæ were diſcovered on the neck and breaſt.

The 4th. He died early in the morning.

Petechiæ were by no means common in the plague. In the preſent caſe their appearance, in conjunction with the other ſymptoms, betokened approaching death. Their colour was different from thoſe common in petechial fevers, and they were few in number.

The firſt attack, in this caſe, was not accompanied by ſymptoms of ſuch dangerous import; vomiting, looſeneſs, coma, &c. were abſent; but the inquietude, on the morning of the 2d day, and the alteration at noon, juſtly raiſed alarm.

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CASE CV.

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The brother of the lad (Caſe CIV.) a youth about twenty, was one of the party at the gardens, on the fourteenth of July, and returned home alſo indiſpoſed in the evening, when a bubo made its appearance in the right axilla. In the night he vomited ſeveral times, and was very reſtleſs.

The 2d day. The fever continued high, his head was much confuſed, and the vomiting returned at intervals. He was ordered the diaphoretic powders, and to drink warm water; but the appearance of the bubo had proved an objection to bleeding. He vomited the night powder, and was for the moſt part delirious, till towards morning, when he ſweated a little.

The 3d. He remained hot and unquiet this morning, but had recovered his ſenſes. He ſuffered ſome exacerbations of the fever through the day, and paſſed a bad night.

The 4th. He had four ſtools in the morning. Fifteen grains of the ſpecies e ſcordio cum op. were given, which put a ſtop to the looſeneſs; but the patient, on hearing of his brother's death, was much alarmed, and paſſed a very bad night.

The 5th. The fever ſtill continued, but upon the whole he appeared to be no worſe. The bubo was a little advanced. He paſſed the night rather more quietly, but did not ſweat.

The 6th. The fever was moderate, and the patient expreſſed a deſire for food. I know not whether he had been indulged, but in the night, he had a ſevere exacerbation, in which he became firſt delirious, then comatous, and towards morning ſeemed to be in the agonies of death, till relieved by a ſweat.

The 7th. He was calm in the morning, the fever moderate, and the bubo advancing. He had three ſtools before the evening, and paſſed a bad night.

The 8th. He had more fever than yeſterday, and was low and dejected. In the night, however, he was tolerably quiet, till two hours before day-break, when he had a ſhort exacerbation, which declined with interrupted ſweats.

The 9th. He was in all reſpects better, but very weak. The bubo was advancing.

The 13th. I heard no more of the patient till this forenoon. The bubo had opened the day before, and he was in a fair way.

The firſt attack, in this caſe, was in ſome reſpects more formidable than that of his brother. He ſweated only a little on the morning of the 3d day,

but, though the fever ſtill continued, he had no coma, nor did that ſymptom come on after the looſe ſtools on the 4th. Though theſe were rather favourable circumſtances, matters remained doubtful till the 7th day. CHAP. I. 1762.

CASE CVI.

July.

A Chriſtian girl, about three and twenty, felt a pain and ſtiffneſs in her neck, the nineteenth of June, to which ſhe paid little attention, conceiving it to be no more than a cold. Next day, at noon, ſhe had a ſhivering ſucceeded by a fever, and, in the evening, a bubo appeared in the right thigh. The fever continued all night, but there was no nauſea. June.

The 3d day. The pain in the neck was gone, but ſhe complained of violent pain in her back and knees. Bleeding was adviſed, and diaphoretic powders were ordered, but of the powders one only was taken; for, an exacerbation coming on ſoon after the firſt, ſhe refuſed to take any more. The bleeding had alſo been neglected. The fever was not very high in the night, and ſhe ſweated a little.

The 4th. She remained much the ſame as yeſterday, and ſuffered ſeveral exacerbations in the day. At night ſhe was prevailed on to take a powder, but did not ſweat, and paſſed a very reſtleſs night.

The 5th. This morning, the fever was moderate, but ſhe was much diſordered; the inquietude was inceſſant, and ſhe complained of conſtant pain, or oppreſſion at the heart. The bubo was well advanced, and extremely painful. She took the medicine at bed-time, but threw it up immediately. After midnight, without any viſible increaſe of fever, ſhe became ſo extremely ill, from inquietude and oppreſſion at the heart, that the attendant expected ſhe would have expired. She had one ſtool.

The 6th. She complained of excruciating head-ach, and ſtill more of oppreſſion at the præcordia. The exacerbations appeared, to thoſe about her, leſs ſevere, yet, in other reſpects, ſhe ſhowed no ſigns of amendment. She took a diaphoretic powder again, but it did not remain on her ſtomach, and ſhe paſſed another diſturbed night, though not ſo bad as the night before.

The 7th. She was more compoſed, but continued to complain much of oppreſſion at the heart, and want of ſleep. She hitherto had only vomited the medicines, which ſhe always took with reluctance, but this day ſhe retained nothing on her ſtomach, which made her averſe to food, and even to drink. A ſcruple of ſalt of wormwood in lemon juice put a ſtop to the vomiting, and her uſual medicine was ordered in the form of a mixture. She had one ſtool. The night was calmer than uſual, and ſhe ſweated a little.

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The 8th day. Though ſhe had ſweated in the morning, the fever remained high. The bubo had ſwelled conſiderably, but remained hard, and extremely painful. The mixture, on account of the powder it contained, had been taken only once or twice; it was therefore changed for a ſimple cordial, with ſweet ſpirit of nitre. She ſuffered ſome ſevere exacerbations laſt night, complained much of oppreſſion at the heart, and was inceſſantly changing poſture, but it was remarkable that ſhe had all along retained her ſenſes.

The 9th. The inquietude and oppreſſion at the heart continued, but the latter was ſomewhat alleviated by the cordial yeſterday, which, for that reaſon, ſhe took willingly. The bubo was inflamed externally, and very painful, but ſtill remained hard. She paſſed this night like the former.

The 10th. The fever was high in the morning, the tongue parched and brown. The complaint at the præcordia, and the inquietude remained as before. She had paſſage this day by means of a ſuppoſitory, and found herſelf better after it; but in the evening ſhe grew worſe, and died in the night.

This is among the few inſtances I met with of a perſon dying in the plague ſo late as the 10th day *. In other reſpects the caſe was ſingular and irregular. At the beginning, thoſe ſymptoms which uſually denote danger were abſent. The pains in the back and knees, which, in that country, often attend malignant fevers, were not common in the plague; and, till the increaſe of the inquietude, and the oppreſſion at the heart, on the 4th and 5th days, there was ground to hope that the diſeaſe would have terminated happily. The apparent advance of the bubo flattered the attendants, but the exceſſive pain, about the 8th day, made me apprehenſive of a mortification.

CASE CVII.

A Jew broker, aged about fifty, of a ſpare habit, and father of many children, obſerved a ſmall angry puſtule on the right wriſt, the evening of the twenty-fifth of June. He did not find himſelf otherwiſe indiſpoſed, and had no ſuſpicion of the eruption; but having no appetite for ſupper, he went ſooner than uſually to bed. Upon getting into bed, he was ſenſible of a ſlight ſhivering, which ſoon went off, and was not followed by any perceptible fever. Next morning the puſtule had ſpread, and was more painful, but he continued walking about. In the night the pain became excruciating, the wriſt and arm ſwelled conſiderably, and he was feveriſh.

* See Caſe IV.

The

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The 3d day. He applied to me in the evening. The fever was then moderate, he had no nauſea, and his bowels were regular. I aſſured the relations, that the diſtemper was the plague, and adviſed the family to conſult their own ſafety, there being ſeveral children who could be of no uſe about the patient. His wife devoted herſelf, and attended him with the utmoſt care. Proper dreſſings were ordered for the eruption, but the pain was ſo violent as to prevent his having any ſleep in the night. The exacerbations of fever, by the accounts brought me, were not very ſevere, and declined without ſweats.

The 4th. I deſired he might be ſearched for buboes, and this day one was diſcovered in the right axilla. The carbuncle was ſpreading. His medicines were diaphoretic powders, and ſpirit of vitriol for acidulating his drinks. He had a pretty ſtrong exacerbation in the afternoon, and paſſed a very reſtleſs night, but ſweated a little, and had two ſtools.

The 5th. The fever had declined in the morning. The carbuncle was ſtill ſpreading, and began to grow black in the middle. At noon, a few drops of blood fell from the noſe, and he vomited twice. The fever increaſing in the evening, continued ſtrong all night, and he did not ſweat.

The 6th day. The carbuncle was ſtill ſpreading, the hand and arm were prodigiouſly ſwelled. He had one ſtool. Though the fever was moderate in the day, as well as in the night, the torture of the carbuncle hindered him from ſleeping.

The 7th. The carbuncle, in ſome places, at the edge of the black cruſt, began to ſuppurate, but there appeared a tendency to a gangrene in the ſurrounding ſkin.

The 8th. There was a pretty conſiderable diſcharge from the carbuncle, but no diminution of pain. He was highly feveriſh in the night, and very reſtleſs. His ſkin remained dry.

The 9th. The fever did not remit in the morning as uſual. The axillary bubo was enlarged, and was more painful. The circle round the carbuncle mortified. A ſudorific draught was given every five hours. At noon, dark petechiæ appeared on his neck and breaſt, after which the fever increaſed, attended with great inquietude and thirſt. In the night he grew worſe, the inquietude was inceſſant, he was for the moſt part delirious, and, towards morning, his breathing became ſo laborious that the attendants gave him over.

The 10th. He was a little more compoſed in the morning, but ſtill rambled. The thirſt was exceſſive; the gangrene ſtill ſpreading. He could

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with difficulty be prevailed on to take any thing, except the acidulated drinks.

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The 11th day. He was calmer and more ſenſible all day, and had leſs fever in the night, but got no reſt from the excruciating pain of the whole arm.

The 12th. The fever was manifeſtly leſs, but the gangrene ſtill continued to ſpread, and the patient was low and exhauſted. The fever increaſed only a little in the night, and, the pain of the arm being ſomewhat abated, he paſſed a better night. He had one ſtool by means of a ſuppoſitory.

The 13th. The gangrene ſtopped this day, and the fever was moderate: but he became hot and reſtleſs in the night.

The 14th. The carbuncle was ſuppurating favourably.

The 16th. He had been rather more feveriſh theſe two nights. The petechiæ were gone; the mortified cruſt in the middle of the carbuncle was nearly ſeparated. Upon changing his clothes laſt night, a ſmall carbuncle, in a healing ſtate, was diſcovered on the left arm.

The 17th. The fever was very ſlight, but the patient was reduced to the laſt degree of weakneſs. He had no paſſage but by means of ſuppoſitories. The tendons of the wriſt were laid bare, by the ſkin ſloughing off. The bubo was diſcuſſing.

The 18th. The diſcharge from the carbuncle was conſiderable.

The 20th. He had been a little feveriſh in the nights. His medicines, for theſe laſt four days, have been ſmall doſes of bark. The mortified parts had now moſtly caſt off, and the ulcer was exquiſitely ſenſible, but the ſuppuration was favourable.

From this time he remained under the care of a ſurgeon. The cure of the ulcer proved tedious, and a ſtiffneſs remained in the tendons. He was a long while in recovering ſtrength.

This caſe was remarkable on account of the ſize, and the excruciating pain of the carbuncle, for though the carbuncles were always painful, yet the pain uſually abated as ſoon as ſuppuration began. The ſituation of the eruption of courſe produced variety in regard to pain, but, in the preſent caſe, much was owing to the ſingular irritability of the habit. The peſtilential ſymptoms at the beginning were not formidable, and the appearance of the carbuncle, on the 7th day, was favourable; but though the ſuppuration came on the 8th, the pain did not abate, nor did the gangrene ſtop; and the appearance of petechiæ, on the 9th, joined in raiſing apprehenſions. He was not out of danger till the 13th day.

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The ſwelling in the axilla was a real bubo, and not produced merely by the pain of the carbuncle. It was not unuſual, where carbuncles on the leg or arm were very painful, for the inguinal or axillary glands to ſwell; but then, generally, more than one gland ſwelled, and as the pain of the carbuncle abated, the ſwellings ſubſided; add to this, that the glands ſo ſwelled, were not ſo painful when touched, as the real bubo. I wiſhed to have given the bark, but could not prevail on him to take it, while the fever ran high. His coſtive habit was an objection to opiates, which I think might have been given ſafely, to allay the pain.

CASE CVIII.

A Chriſtian, between thirty and forty, on the fourth of July, while at church, felt a ſhooting pain in the left thigh. In the evening he became feveriſh, and vomited.

The 2d day. He was calm in the morning. The bubo ſmall, and ſituated near the crural veſſels. He was directed to loſe ten ounces of blood, and to take diaphoretic powders. He paſſed a feveriſh, reſtleſs night.

The 3d. The fever was ſtill high, and he was much diſpoſed to ſlumber. He had not vomited ſince the firſt night. The fever increaſing in the night, he was for the moſt part delirious, and a ſecond bubo was protruded in the right thigh. He ſweated a little towards morning.

The 4th. The fever had declined, and he had recovered his ſenſes, but complained of weight in his head, and was much diſpoſed to ſlumber. The fever increaſed in the night, but he was not delirious. He had one ſtool.

The 5th. He was in the ſame ſtate as yeſterday. The firſt bubo was advancing, and he paſſed a better night.

The 6th. He was remarkably well in the morning, and continued ſo till four in the afternoon, when, a ſevere exacerbation coming on, he became delirious, and extremly reſtleſs, and remained ſo till after midnight, when he was relieved by a profuſe ſweat.

The 7th. He was in all reſpects better. The bubo was a little inflamed, and conſiderably enlarged. The ſecond bubo had made little progreſs. He was reſtleſs in the night, but ſweated about day-break.

The 8th. He was tolerably calm all day, and paſſed a compoſed night.

The 9th. As yeſterday. The bubo was advancing faſt, and the pain of it rendered him hot and reſtleſs in the night.

The 10th. His chief complaint was of the bubo. He could not be reſtrained, in the forenoon, from indulging his appetite, and eat greedily of boiled mutton. In the afternoon, a ſevere exacerbation of fever came on,

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and he continued very ill all night. In this interval a third bubo was protruded in the left thigh, near the firſt.

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The 12th day. He had been tolerably quiet ſince yeſterday morning. The firſt bubo was nearly ripe, the ſecond was advancing ſlowly. About noon he had a conſiderable hemorrhage from the noſe, and was very feveriſh in the night.

The 14th. The firſt bubo was ſoft, and in a ſtate to be opened, but no one could be found to perform the operation.

The 16th. The bubo was opened with a lancet, but, the inciſion being too ſmall, the diſcharge was inconſiderable.

The 20th. The diſcharge from the firſt bubo was ſtill very inconſiderable, and the ſwelling had not ſubſided. The ſecond bubo in the right thigh, which ſeemed at one time to advance, had receded, and was now ſcarcely perceptible. The third bubo in the left thigh, had ſomewhat advanced.

The 22d. The firſt bubo now diſcharged freely, the orifice having enlarged of itſelf.

The 24th. He had for ſome days been free from fever in the day, though ſometimes a little feveriſh in the nights. This afternoon, he had a ſmart fever for ſeveral hours, which declined without a ſweat; but a fourth bubo was protruded in the right axilla. The third bubo which had appeared on the 10th in the left thigh, was tending faſt to maturation. The axillary bubo remained as at firſt. Since yeſterday he has had a defluxion on the right eye, which is much inflamed. A purging potion was ordered to be taken next morning.

The 28th. The third bubo in the left thigh opened. The axillary bubo was diſcuſſing. His medicines, from the 12th day, had been ſmall doſes of bark.

The patient had contracted the itch in the winter, and got rid of it about two months before his preſent illneſs. About this time, that diſtemper again returned, and, in conjunction with the ophthalmia, contributed greatly to retard the recovery of his ſtrength.

The ſucceſſion of buboes, in this caſe, was the more remarkable, as the firſt bubo had all along advanced favourably, and the patient had ſweated profuſely on the 6th day. The appearance of the 3d bubo, on the 10th day, was aſcribed to his having eat fleſh, it being a common opinion in that country, that the eating of fleſh before the expiration of 30 or 40 days, will produce new eruptions in the plague, as well as in the ſmall-pox. The eruption of the axillary bubo, ſo late as the 24th day, was a very uncommon circum-

circumſtance. The hemorrhage from the noſe, on the 13th, might have cauſed apprehenſions, had it not been for the abſence of other bad ſymptoms.

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It was proportionally in a few caſes only, that the lancet was uſed for buboes, and then often proved of little ſervice, from the ſmallneſs of the orifice, as in the preſent caſe.

CASE CIX.

A Turkiſh youth was infected the latter end of June. An inguinal bubo, which had opened in the third week, was ſtill running, when I ſaw the patient for the firſt time, on the laſt day of July.

Some days before I ſaw him, that is, about the 27th, or 28th day of the diſeaſe, a ſecond bubo had been protruded cloſe to the firſt, and was then advancing to maturation.

It does not appear, from the defective narrative of this caſe, whether the eruption of the ſecond bubo was preceded by febrile or other ſymptoms; but as the firſt bubo was ſtill running, and, in conſequence, the patient probably in a ſtate to communicate infection to others, the eruption of the new bubo cannot, I think, be conſidered as a freſh attack of the plague. In the preceding caſe, where there was no ſuſpicion of re-infection, the laſt bubo did not appear till the 24th day.

CASE CX.

A Chriſtian child was ſeized with the plague, about the nineteenth of June, and had two buboes in each thigh. Thoſe in the right thigh came to ſuppuration, and diſcharged moderately for ſeveral days; the others diſperſed.

On the twenty-ninth of July, the child was brought to me with a bubo in the left thigh, which had appeared about the 27th day of the diſeaſe.

The firſt bubo, in this caſe, was healed up only a few days before the eruption of the ſecond, and, the diſcuſſion of buboes being always very ſlow, it may be ſuſpected that the ſecond bubo was no more than one of the former buboes, which ſwelling had not been completely diſperſed.

The four following caſes were conſidered as re-infections, though ſome objection perhaps may be made to the firſt.

APPENDIX.

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CASE CXI.

1762. June. A Chriſtian woman was ſeized with the plague on the ſeventeenth of June, 1762, and a bubo appeared, a few hours after, in the right thigh. She paſſed very eaſily through the diſeaſe, and the bubo gradually diſperſed.

She went to the bagnio on July the twenty-ſeventh, and, on her return, a bubo appeared (as far as ſhe could judge), preciſely in the place of the former. The eruption of this ſwelling was accompanied with no perceptible fever, or other diſorder. When I ſaw the tumor on the 4th day, it was pretty large, and beginning to inflame externally.

Inſtances of the eruption of new buboes, as late as the 27th, or 28th days, have been given before, (Caſes CIX. CX.) but ſuch were not ſuſpected to be new infections. In the preſent caſe, a bubo was protruded forty days after the firſt attack, exactly in the ſame place where the former bubo had been, and its eruption was attended with no ſymptoms of diſorder. This laſt circumſtance may render it doubtful, whether the new ſwelling might not be rather a reſuſcitation of the firſt bubo, not entirely diſperſed, than a new infection, was it not that there appeared no ground, from the hiſtory, for queſtioning the diſperſion of the firſt bubo. The abſence of febrile ſymptoms was a circumſtance ſometimes remarked alſo, in the firſt attack of the plague.

CASE CXII.

A Chriſtian middle aged woman, had been taken with the plague about the ſixth of June, 1762, and had two buboes; one in the right groin, which opened of itſelf ſome time in the third week, and, after diſcharging moderately for eight or ten days, healed up; the other in the right axilla, which diſperſed. She recovered favourably, and, at the expiration of forty days, went to the bagnio, according to cuſtom.

Upon her return from the bath, (July ſeventeenth) She was ſeized with a chilneſs, ſucceeded by a pretty ſtrong fever, and a bubo was protruded in the left axilla.

On the 3d day ſhe came to me, and gave the above account of herſelf. The fever was very ſlight. The bubo was larger than a pigeon's egg, and ſeemed tending to ſuppuration, though the ſkin externally was not yet inflamed. The uſual topical remedies were directed, and ſhe was deſired to let me know how ſhe went on; but I heard no more of her.

In caſe CXI. the eruption of the new bubo was in the ſame place with the old one, and was attended with no diſorder: in the preſent, the ſymptoms reſembled

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resembled those of a first attack of the disorder, and the bubo was in a situation entirely different.

CASE CXIII.

1762. June.

A Jew girl, nineteen years of age, was seized with the plague about the thirteenth of June, 1762, and confined to her bed eight or ten days, after which she was able to walk abroad. The left parotid had swelled at the beginning, and made a more rapid progress than those tumors commonly do; for it opened of itself in the second week, and continued to discharge during several days. From that time the girl considered herself as perfectly well.

When the ulcer healed up, the swelling was not entirely dispersed; but it gave her no pain, and she was told that what remained would disappear by degrees. At the end of the month she was advised, as the best means of getting rid of the remaining induration, to go to the bagnio, and was induced, on that consideration, to comply with the advice, though ten days earlier than the usual period.

On the thirteenth of July, while in the inner room of the bagnio, she complained of sharp pain in the right parotid, and, on her return home, was taken with a violent fever, preceded by a shivering, and accompanied with oppression at the heart, and great inquietude, in which state she remained all night.

I saw her the day following. The fever had declined towards morning, but she complained of nausea, and of a strange confusion in her head. The parotid was very painful, and more swelled (by her account) than yesterday.

It was uncommon to see a parotid come so soon to maturation. The eruption of the new tumor was accompanied with such pestilential symptoms as seemed sufficiently to characterise a fresh infection; unless it should be thought that the remaining induration showed her to have been not free from the first infection. Had the left parotid again become painful, instead of the right, the case would certainly have been more doubtful, especially considering thirty days only were elapsed from the first attack.

CASE CXIV.

A Jew boy, four years old, was taken with the plague on the fourteenth of May, 1762. The only eruption was a parotid on the left side, which opened the 10th or 11th day of the disease, and continued discharging till the end of the first week in June. The little patient, being to all appearance perfectly well, was carried to the bagnio on the 31st day. Upon his return

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home, he became feveriſh, extremely reſtleſs, and continued ſo till the evening of the next day, when he had ſeveral pretty ſtrong convulſive fits.

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The 3d day. A ſmall veſicle was obſerved on the left wriſt, and the child became dull and ſleepy; in which ſtate he was brought to me in the evening. The mother, conceiving it impoſſible that the child ſhould be infected a ſecond time, could not be perſuaded that this eruption was a carbuncle, and therefore nothing more was ordered than to apply an emollient cataplaſm.

The 4th. The child remained drowſy as yeſterday; but the carbuncle had ſpread, and was extremely painful. In the afternoon, and in the evening, he ſuffered ſeveral ſevere exacerbations of fever, and was comatous moſt part of the night.

The 5th. He continued ſtill comatous. The carbuncle was conſiderably enlarged, and black in the middle; and the whole arm was much ſwelled. He expired in the night.

He took no medicines, except ten grains of contrayerva powder, on the night of the 4th, and on the morning of the 5th day.

There can be little doubt of this caſe being a real ſecond infection, and that too of the worſt kind.

CASE CXV.

A Chriſtian child, about five years old, ſickened on the twenty-firſt of June. The eruptions were a bubo on each thigh, and one in the right axilla. Theſe tumors diſperſed, and the patient, after the firſt ten days, appeared to be perfectly well.

July.

On the twenty-ſeventh of July, this child was again attacked with a fever, accompanied with a vomiting, in which ſeveral worms were ejected, and, on the ſecond day, the right parotid ſwelled.

I ſaw this patient, for the firſt time, on the 6th day, (Aug. 1.) and from the appearance of the tumor, as well as from other circumſtances, judged it to be peſtilential.

The tumors in the firſt attack, had diſperſed, a circumſtance which has been ſuppoſed to render a perſon more liable to a ſecond; but that matter, ſo far as I could obſerve, is by no means clear. See book ii. chap. vi.

CASE

CASE CXVI.

A girl, about ſix years old, was brought to me on the twenty-firſt of July, 1762; ſhe had three days before been taken ſuddenly with a fever and vomiting, and, on the day following, two of the cervical glands ſwelled, and were very painful. 1762. July.

The 4th day. She ſtill continued feveriſh, the tumors were extremely painful, and ſlightly inflamed externally. This girl, (by the mother's account) had, in the month of April, been ill of the plague, accompanied with a bubo in the axilla, and a carbuncle on the leg.

The child had never been ſubject to the tinea, nor to eruptions of any kind upon the head; and from the mode of the attack, and appearances on the 4th day, I deemed her caſe to be a re-infection.

In this caſe again, the bubo had diſperſed; but there had been a diſcharge from the carbuncle.

CASE CXVII.

1761. October.

An Armenian girl, between ſeven and eight years old, was ſeized with the plague, on the third of June, 1761. A bubo appeared in the right axilla on the ſecond day, and a carbuncle was ſoon after protruded on the right ſide. She had a vomiting the two firſt days; and the febrile ſymptoms continued to run high till the end of the firſt week. The bubo, advancing favourably to maturation, opened the 20th day. The carbuncle ſpread to nearly twice the ſize of a crown piece, and, after the ſeparation of the black cruſt in the ſecond week, continued to diſcharge copiouſly for more than a fortnight. The diſcharge from the bubo was alſo conſiderable, and the ulcer was not completely healed till about the end of Auguſt. From that period, the girl, who had been greatly weakened, and emaciated, began to recover apace, and, though ſtill pale and feeble, ſhe was in other reſpects very well by the middle of September.

On the fourteenth of October, ſhe was a ſecond time attacked with the plague. A bubo appeared in the left thigh, accompanied with the moſt alarming ſymptoms, and ſhe expired on the 4th, or 5th day of the diſeaſe.

In this caſe the diſcharge from the eruptions, in the firſt attack, had been very conſiderable.

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CASE CXVIII.

A Chriſtian poor man, aged about thirty, had been infected in the month
1762. of March, 1762, and confined to his bed for a few days, by the violence
July. of the diſorder; but, his circumſtances not admitting of indulgence, he was obliged to quit his bed before he had got rid of the fever. A bubo in the right axilla came to maturation, opened of itſelf, and continued diſcharging copiouſly for near a month.

Towards the latter end of June, ſome perſons happened to be taken with the plague in the ſame houſe; and he, on a preſumption of not being liable to it a ſecond time, aſſiſted to nurſe them, without dread or apprehenſion. While employed in this way, he was, on the fourth of July, taken with a ſlight ſhivering, followed by a fever, and a bubo immediately appeared in the left thigh. He was bled that night. The fever on the three following days, was, in his own opinion, much more violent than that which had attended his firſt attack in the month of March, and, it was not till the fifth day, that he was able to walk to my houſe.

The 5th day. He had ſweated once or twice inconſiderably, but the fever was now moderate. The bubo had made little or no advance, but the pain of it incommoded him in walking. His countenance was not altered, and he was in good ſpirits. A ſudorific was ordered, and a plaſter was applied to the tumor.

The 8th. The fever had left him yeſterday; the bubo was diſcuſſing, and he found himſelf free from complaints.

This was a ſlight caſe of re-infection. The bubo, in the firſt attack, had diſcharged copiouſly.

CASE CXIX.

June. A young man had been infected in the month of March, 1762. The ſole eruption was an inguinal bubo in the left ſide, which diſperſed by degrees, and the patient recovered favourably.

On the twenty-eighth of June, 1762, he was taken ſuddenly with a nauſea, head-ach, and fever, and felt a ſhooting pain near the place of the former bubo. The part being examined, a ſmall, hard, painful tumor was diſcovered deep under the ſkin.

When he came to me in the afternoon, the fever was very ſlight, and the tongue retained its natural colour, but his countenance was confuſed and dejected. Diaphoretic medicines were ordered to be taken night and morning.

The 2d day. Having ſweated a little in the night, he found himſelf a good deal better towards morning. The bubo ſeemed rather to have decreaſed, and was leſs painful than yeſterday. 1762. June.

The 3d. He had ſweated again laſt night, and very little fever remained. The bubo had decreaſed in ſize. As he ſtill complained of headach, and of a ſlight nauſea, fifteen grains of ipecacuanha were ordered to be taken next morning.

The 4th. The vomit had operated once only, but he was relieved by it, and had occaſion for no more medicine. The bubo was ſcarcely perceptible.

This was another ſlight caſe of re-infection. The bubo in the firſt attack had diſperſed.

CASE CXX.

A Turk, aged about forty, of a robuſt conſtitution, was ſeized with the plague on the firſt of July, 1762, a bubo appearing, the ſame night, in the left thigh. The fever was pretty violent the firſt four days of the diſeaſe, and attended with frequent vomitings. July.

On the 8th day, he was brought to my houſe, ſupported by two aſſiſtants. The fever was then ſlight, the eyes muddy, and ſlightly inflamed; the tongue white. The bubo was ſituated near the crural veſſels, of the ſize of a pigeon's egg, ſomewhat inflamed externally, and moſt extremely painful. He had not been bled, nor had he taken any medicine.

This man, as he informed me, had been infected in the ſummer of the preceding year, and confined to his houſe upwards of three weeks. The diſeaſe, at that time, was accompanied with five or ſix carbuncles, but no buboes.

The patient did not return a ſecond time, and I had no opportunity of learning the event of the caſe.

It may be remarked, that there muſt probably have been a conſiderable diſcharge from the carbuncles, in the former attack, in the preceding year.

CHAP. II.

A general Deſcription of the Seaſons at Aleppo.

THE ſeaſons at Aleppo are in general uniform. When they happen to vary in different years, it is principally in the winter and ſpring months, and then their variation is inconſiderable, if compared with the irregularities incident to more northerly regions.

Before entering into a particular account of the weather of thoſe years, in which the plague was epidemical in Syria, it may be proper to take a ſurvey of the ſeaſons of that country in their ordinary courſe; in order to have ſome ſtandard to refer to, by which deviations peculiar to the peſtilential years (if ſuch there are) may be more readily diſcovered. The account of the weather, given by my Brother in his Natural Hiſtory of Aleppo, is ſo exact as to render it neceſſary to enlarge on a few circumſtances only, which, by ſubſequent obſervations, in a ſeries of eighteen years, have been eſtabliſhed with more preciſion.

The weather, in the beginning of the ſpring, is cool and rainy, but, before the middle of March, it becomes variable and mild; the rain falls in ſhort, but very heavy ſhowers, and the clouds being diſpelled by weſterly breezes, the ſky is clear, and chearful in the intervals. The ſharp wintry winds, namely the eaſterly, northerly, and ſouth-eaſt, are predominant, however, till April; after which, they not only become leſs common, and leſs ſtrong, but their quality is changed from cold to tepid, and they are often accompanied by thick, hazy weather, oppreſſively warm. There are always ſome days of this kind, in April, but the ſky, for the moſt part, is either ſerene, or variegated only by white clouds: except when rain falls, which is more ſeldom than in March, and in ſhowers of ſhorter duration. The ſpring, advancing rapidly in April, reaches its heighth towards the end of that month. The weather continues vernal for ſome time in May, but the ſolar heat, though attempered by ſhowers, and weſterly breezes, grows daily more potent; the verdure of the fields diſappears rapidly, and, about the middle of that month, the ſpring gives place to ſummer.

The ſpring rains fall chiefly in March, it is ſeldom that April can be called a wet month, and, generally, there are only a few ſhowers in May. The quantity of rain that falls between the firſt of March, and the fifteenth of May, varies conſiderably in different years. The ordinary quantity is

from twenty-one, to thirty; the extremes being ſixteen and fifty-three. The greateſt number of rainy days in any year was, according to the regiſter, thirty-ſeven, the leaſt fourteen; the ordinary number was from nineteen, to twenty-five *. CHAP. II.

The firſt weeks of the ſummer are temperately hot. There are uſually ſome ſhowers in May; the ſun is often tranſiently obſcured by white clouds; and weſterly breezes, for at leaſt ſome hours of the day, are pretty conſtant. It is ſeldom that any rain falls later than the firſt week in June. Tranſient clouds are leſs common alſo; yet they ſtill, now and then, make their appearance about noon, and join with the weſterly breeze in moderating the heats, which increaſe conſiderably in calms, or when the wind ſhifts to the eaſterly, or the northerly points.

During the month of July, as well as the greateſt part of Auguſt, the ſky is commonly quite ſerene, and the heat of the weather, if not mitigated by weſterly breezes, becomes exceſſive. But, in general, thoſe winds are regular in their diurnal return, blowing briſkly throughout the day, and ſometimes alſo in the night: in proportion as they languiſh, the heats increaſe, and when they fail entirely, the nights become ſultry and oppreſſive.

Yet calms are more ſupportable than eaſterly, northerly, or ſoutherly breezes. When thoſe predominate, the ſky appears of a paler blue, the horizon is hazy, the air becomes dry, and exceſſively hot, and the winds, more or leſs ſtrong, are rather productive of languor, than refreſhing. Theſe

* The quantity of rain was computed in the following manner: A ſmall ſhower was, in the regiſter, marked thus (\); and when ſeveral interrupted ſhowers fell in the ſame day (which often happened in the ſpring) two or three of the ſame marks denoted a ſhowery day. When the rain continued with little or no intermiſſion for the twenty-four hours, the day was marked with four croſſes, thus (XXXX), and with three or leſs, in proportion to the diminiſhed quantity of the rain that fell. Two of the marks (\) were reckoned equal to one croſs (X), and the number of croſſes added together gave the monthly quantity of rain.

The ſame method ſerved alſo for ſnow, only that dots were uſed in place of croſſes. One dot (.) denoted one ſhort ſhower; two (..) the continuance of the ſnow for three or four hours, and ſo in proportion, as far as four, (....) in the ſame day. The ſum of all thoſe dots gave the whole quantity of ſnow in the month.

A ſingle ſhower of rain, or of ſnow, was ſufficient to denominate the day rainy or ſnowy; which may account for the number of rainy days in the ſpring appearing ſometimes greater than in the winter, although the quantity of rain that really fell was much leſs.

This mode of computation, though not ſufficiently accurate to qualify the obſervations for a compariſon with ſuch as have been made in other ſituations, with the advantage of proper inſtruments, may aſſiſt in forming ſome judgment of the correſpondent ſeaſons at Aleppo, in different years, relatively to one another.

CHAP. II.

winds, providentially, are rare in the ſummer, and of no long continuance *. They occur however more frequently than the true hot wind, which blows in briſk gales from the eaſt, and continues, ſometimes, for many hours.

Towards the end of Auguſt, the Nile clouds (as they are called) are uſually obſerved to paſs over the city, and, ſoon after, there is a ſenſible alteration in the ſtate of the air. The limits of the ſummer may properly be placed at that period.

The autumn commences with September, and ends with November. The heats are leſſened, during ſome days in the beginning, by the interpoſition of the Nile clouds, which, beſides intercepting the rays of the ſun, probably impart ſome moiſture to the atmoſphere; for nocturnal dews, which are very ſeldom obſerved in the ſummer, become from that time common. But it is not long before the ſky reſumes its uſual brightneſs; the weſterly winds, growing fainter and leſs conſtant, give place to variable light breezes, or to perfect calms; and the weather continues ſultry in the day time, till refreſhed by the fall of the *firſt rains*. This happening, in general, about the autumnal equinox, is ſucceeded by a track of clear, pleaſant weather, during which the freſhneſs of the mornings and nights increaſes by an eaſy gradation.

The *ſecond rains* produce a more ſudden and ſenſible alteration in the temperature of the air, and the weather becomes from day to day more variable. Theſe commonly fall in October, though they ſometimes delay till the ſecond fortnight of November. In the latter caſe, the pleaſant autumnal ſeaſon is protracted; but if they fall in October, it is in longer, heavier ſhowers, and the weather continues bleak and gloomy for ſeveral days together. Towards the end of November, the mornings are ſometimes froſty, and, if heavy rains have fallen, moſt of the trees are diveſted of their leaves.

The autumnal rains are leſs conſiderable than thoſe of the ſpring, but like them are often accompanied with thunder, and vary as to quantity in different years. The uſual quantity is from ten to twenty, the extremes eight, and forty-four. The greateſt number of rainy days was twenty-two, the leaſt ſix. The moſt common number was from eleven to ſixteen.

The bright intervals, ſo frequent in November, and by which the tranſition to winter is rendered ſlow and gradual, are leſs common in December. The weather grows colder apace; it rains in ſhowers leſs heavy, but more conſtant; the ſky between whiles, except in froſt, is deformed by

* Ruſſell's Natural Hiſtory of Aleppo.

heavy black clouds, or covered with a ſettled gloom, and thick fogs are frequent in the mornings: in all which circumſtances, January agrees with the laſt fortnight of December.

The winter ſeldom or never paſſes altogether without froſt. In ſome years the froſt is rigorous, but in general it is moderate, and of ſhort continuance. The greateſt number of froſty days, obſerved in the ſame winter, was fifty-one, the leaſt four. When the froſty days are not fewer than twelve, or exceed twenty-four, the winters are reckoned moderate; from twenty-four to forty, denominates the winter rather ſevere; but where the number of froſty days exceeds forty, (which happened in two only of eighteen years) the ſeaſon is deemed extraordinary rigorous. While the froſts laſt, if there be no wind, the weather is perfectly clear, the mercury in the barometer ſtands at about 29, and the air is cold till the ſun approaches the meridian, when the ice, unleſs in the ſhade, begins to thaw. When there is wind, the ſky is commonly more or leſs cloudy, the ſun has leſs power, and the air continues all day piercingly cold.

The froſts are often accompanied with ſnow. In five only, of eighteen winters, no ſnow fell. In the more ſevere winters, the ſnow continues unmelted on the ground for many days, and ſometimes remains unmelted even in the ſtreets. But it more frequently melts as it falls, and, in general, remains only a few days on the ground. As to the quantity, unleſs in extraordinary years, it is not conſiderable. In common it was about ſix. The extremes were twenty-one, and two. The greateſt number of ſnowy days, in the ſame winter was eight or nine, and that happened in three years. In five of the others, there were no more than two or three ſnowy days; and in the five remaining winters, the ordinary number of ſnowy days was four.

A cloudy wet conſtitution, the thermometer fluctuating between forty-two and fifty, is of all others the moſt generally predominant in the winter; but the quantity of rain which falls in different years varies very much. The greateſt quantity obſerved in any year was ninety-one, the leaſt twenty-one. When it is leſs than thirty, the ſeaſon is reckoned unuſually dry. From thirty to ſixty is reckoned moderate, and within theſe limits the quantity of rain varies in ordinary winters. From ſixty to ſeventy is eſteemed wet, but when the quantity exceeds ſeventy, the winter is then wet in an extraordinary degree. The greateſt number of rainy days was forty-ſeven, the leaſt eighteen. The number in ordinary years was from twenty to thirty-ſix.

Rain falls through the three winter months. The froſts and ſnow happen chiefly between the twenty-ſecond of December, and the end of January.

CHAP. II.

The froſts ſometimes ſet in earlier, but are oftener protracted till the ſecond week of February; commonly, however, they are prevalent in the period juſt mentioned, which conſtitutes the maarbanie of the natives *.

The winter is ſeldom ſo rigorous as to exclude, even in the maarbanie, the intervention of a few mild bright days. Towards the end (that is from the middle of February) the weather becomes variable, and there are intervals perfectly vernal. Vegetation begins every where to revive, and ſeveral of the trees are in bloſſom.

To the foregoing deſcription of the ſeaſons, I ſhall ſubjoin two tables, formed from the meteorolgical regiſter. The firſt is intended to exhibit a comparative view of the extremes, together with the uſual height and variation of the thermometer, in the reſpective months of five years. The ſecond to ſhew the extremes of the barometer in the ſame years; as alſo the winds, the number of rainy, and of ſnowy days, the earthquakes, and eclipſes.

In order to facilitate a compariſon with the general account of the weather in my brother's Natural Hiſtory of Aleppo, I have allotted, in both tables, a column for a ſhort abſtract, from that account, of ſuch matters as concern them reſpectively; but, in making the compariſon, it ſhould be remembered that the Hiſtory, on that occaſion, obſerves the Julian ſtile.

The ſame barometer and thermometer which had ſerved for the obſervations in the year 1752 and 1753, have been uſed ever ſince, and kept almoſt conſtantly in the ſituation deſcribed by my brother †. When they happened to be removed, during ſome months in the peſtilential ſeaſon, the obſervations were adjuſted by means of other inſtruments with which they had previouſly been compared; ſo that the ſame inſtruments, and the ſame ſituations are underſtood all along, for the eighteen ſucceeding years.

* A term conſiſting of forty days. The natives, during the maarbanie, abſtain from the uſe of medicines in all diſtempers that, without immediate danger, admit of delay.

† Ruſſell's Natural Hiſtory of Aleppo.

EXPLA-

APPENDIX.

EXPLANATION of TABLE I.

TABLE I.

AN Abſtract, from Russell's Natural Hiſtory of Aleppo, of the height and variation of the thermometer, poſſeſſes the firſt column. The three peſtilential years, with the year preceding them, and that which immediately followed, are diſtributed in the other five columns. The letters a and b, in the firſt diviſion of each month, denote the greateſt and leaſt height of the thermometer in the reſpective months; the inſtruments having been obſerved morning and afternoon.

The ſecond diviſion C, ſhows the uſual height of the thermometer in the mornings, throughout the month; as the third diviſion D, does the common variation in the ſame day, or the difference between the morning and evening obſervation. The ſmall figures are generally placed in the ſame order in which the variation took place in the courſe of the month.

EXPLANATION of TABLE II.

TABLE II.

CONTAINS ſix columns. In the firſt, is given a general account of the barometer, winds, rain, &c. extracted from the Natural Hiſtory of Aleppo. The other five are allotted to the reſpective years. The letters a and b, denote the greateſt and the leaſt height of the barometer. The letter c, denotes the winds moſt commonly prevalent. The letter d, in the fourth diviſion, ſhows the number of rainy days in the reſpective months; but in the firſt column, where there are two numbers, as in January ix-vi, the number of rainy days is meant to have been, in general, from nine to ſix. The letter e ſhows the number of ſnowy days in the three winter months. And, the laſt diviſion F, is allotted to Earthquakes, Eclipſes, and Comets.

CHAP. II.

General Account.		1759.	1760.	1761.	1762.	1763.
January.	a	57	46	46	43	47	42
	b	34	36	30	32	26	30
				43		43	
	C	40	38	40	40	36	33
		46	37	42	38	40	40
						0	
	D	3	4	3	4	3	2
		4	6	0	6	2	6
		0	7	3	3	4	3
February.	a	55	48	55	49	53	54
	b	40	28	32	31	40	28
		42	38	36	28		
	C	47	28	40	31	41	30
		50	42	48	46	46	42
							1
	D	1	4	2	3	1	3
		2	2	0	0	2	2
		3	6	5	5	4	6
		5	5	4	4	5	0
March.	a	67	60	60	59	59	62
	b	44	38	38	43	46	46
		50	38	48	48	48	47
	C	52	47	40	50	52	50
			54	52	45	55	58
				6	7		
			4	4	5		4
	D	5	6	0	4	3	3
		8	3	9	0	5	0
		9	8	3	2	6	5
April.	a	82	71	68	78	66	
	b	51	53	47	49	55	
		66		52			
	C	66	56	55	50	59	
			62	62	62	60	
					4		
			7	7	7		
	D		8	6	8	3	
		8	0	5	2	4	
		10	9	2	12	7	
May.	a	92		80	82	82	
	b	67		62	55	65	
		70		63	67		
	C	76		66	57	65	
		80		70	67	69	
				7			
				1	16		
	D	6		0	11	6	
		9		8	10	8	
		9		2	12	10	
June.	a	96	94	89	89	89	89
	b	76	69	69	70	65	66
				70	72		73
	C	76	74	74	78	67	68
		80	81	77	75	72	77
				8			8
							2
	D		9	9	11	7	6
			8	3	14	10	10
		8	13	10	9	5	12
		12	14	12	10	15	16

General Account.		1759.	1760.	1761.	1762.	1763.
July.	a	101	95	94	95	94	94
	b	77	71	75	78	73	74
				76	78		74
	C	80	79	83	80	77	78
		85	81	81	83	80	86
			11				8
	D		10	6	11	14	10
			12	7	14	12	7
		8	14	9	10	10	9
		10	16	10	12	13	14
Auguſt.	a	97	95	96	91	94	95
	b	74	74	75	76	80	74
			84	82			
	C	80	78	88	80	80	86
		75	82	87	79	83	82
			10		8	11	11
	D		6		7	8	12 10
		8	9		6 7	5 6	8 4
		7	12		10	9	9
September.	a	92	90	94	85	90	88
	b	62	64	73	71	71	72
		75	78	82	76	82	
	C	70	72	79	74	75	78
		65	64	74	76	63	74
			7	12			13
	D	3	9	16	6	8	8
		9	6	5	7	9	7 8
		3	2	13	8	6	4
October.	a	84		84	82	77	84
	b	51		62	67	63	54
				76	76	63	75
	C	72		70	70	70	64
		60		62	69	67	55
							9
	D	5		12		7	7
		6		8	7	9	4
		4		14	6	6	6
		2		6	5	4	0
November.	a	65	69	66	69	69	63
	b	44	52	46	49	52	50
			63	62	65		56
	C	60	59	59	53	58	54
		50	52	46	51	54	52
			3	4	4	8	4
	D	5	0	5	2	7	6
		3	5	6	0	5 3	1 2
		2	4	2	5	2	0
December.	a	55	57	49	55	54	49
	b	40	46	39	37	28	40
				40	54	51	46
	C	56	50	39	30	46	40
			47	46	44	30	46
			4	0			3
	D	3	0	2	0	0	2
		0	3	3	2	2	0 1
		2	2	4	1	1	5

TABLE II.

		General Account.	1759.	1760.	1761.	1762.	1763.
Jan.	a	29,3	29,1	29½	29,1	29½	29½
	b	28,6	28,6	28,5	28,5	28,5½	28,5
	C	N. E. IX-VI	IX	E. N.E. XIV	E. N.W. N. X	E. N.E. VIII	E. E.N.E. VIII
	d e F	3 Yrs. in 10	0	2 Earthquake	4	2	4
Feb.	a	29,3	29,2	29	29	28,9	29,1
	b	28,4	28,4	28,5	28,4	28,4½	28,6
	C	N: E. W. IX-VI	V	E. N.E. XIV	N. W. E. V	E. N.E. S.E. XVIII	N. E. E. V
	d e F	4 Yrs. in 8	4	1 Earthquake	4	0 Earthquake	0
March	a	29	29,1½	28,9	29	28,9½	28,9½
	b	28,6	28,3½	28,2	28,5	28,4	28,4½
	C	E. W. N.E. IX-III	E. W. N.E. IX	E. S.W. XVIII	E. W. N.W. XIV	N. E. N.E. X	N. N.E. W. XI
	d e F						
April	a	29,1	28,9½	28,9	28,9	28,9	28, 9
	b	28,5	28,5½	28,5	28,6	28,5½	28,5½
	C	W. N.E. IX-II	W. IV	S. N.E. E. IX	S.E. E. W. IX	E. S.W. N.E. VI	E. W. XI
	d F		Comet		Earthquake		
May	a	29	28,8½	28,8½	28,8	28,9	28,9
	b	28,6	28,6½	28,5	28,6	28,6	28,6
	C	N. W. E. VIII	W. E. I	E. W. N.E. X	S.W. W. S.E. V	E. W. N.E. VI	W. I
	d			Earthquake	Eclipse		
June	a	29	28,8	28,7½	28,8	28,7	28,8
	b	28,5	28,6	28,4½	28,4½	28,4½	28,4½
	C	W. I	W. 0	W. I	W. S.E. S. I	W.E. IV	W. II
	d		Earthquake			Earthquake	

TABLE II. continued.

		General Account.	1759.	1760.	1761.	1762.	1763.
July	a	29	28,7	28,7	28,7	28,7	28,6½
	b	28,5	28,5	28,4½	28,4½	28,5½	28,4
	C	W.	W.	W.	E. W. S.	W.	W.
	d			o	o	o	o
	F				Earthquakes		
Auguſt	a	29	28,7	28,7½	28,7	28,7	28,7
	b	28,4	28,5	28,5	28,5	28,5½	28,5
	C	W.	W.	W.	W.	W. E.	W. N.E.
	d	I	I	o	o	I	
	F			Earthquakes	Earthquakes		
Sept.	a	29	28,8	28,8½	28,8	28,8	28,8½
	b	28,6	28,5½	28,7	28,6½	28,6	28,1
	C	W.	W.	W.	W. E.	W.	W.
	d	IV-I	II	II	I	II	I
Octob.	a	29	28,9	29,1	28,9	29	28,9
	b	28,6	28,7½	28,6	28,7	28,7	28,6
	C	Variable	E.	W. E.	W. E.	N. E. Var.	N.W. E. Var.
	d	XII	IV	I	III		VII
	F		Earthquakes				
Nov.	a	29	29	29	29	29	28,3½
	b	28,4	28,7½	28,6	28,6	28,7	28,6
	C	N. E.	N. E. Var.	N. Var. E. E.	N. o N.E. Var.	N. N.E. Var.	E. N. N.E. Var.
	d	XII	XI	XIV	VIII		XIV
	F		Earthquakes				
Dec.	a	29,1	29	29,1½	29,1	29½	29,1½
	b	28,4	28,5	28,7	28,5	28,5	28,6
	C	N. E.	N. E. o	N. N.E. E. S.	E. N.E. S.	E. Var. N.E.	E. S. N.E. Var.
	d	XVI-VI	XIII	XII	XIII	V	X
	F		o Earthquakes		2	2	o Earthquakes

CHAP. III.

An Abſtract of the Weather in the three Plague Years.

IN the following account, each month, being deſcribed ſeparately, is divided into the firſt and ſecond fortnight, and the deſcriptions are arranged in correſpondent columns, in order that the weather, in the reſpective months of different years, may more eaſily be compared. As the conſtitutions of the year immediately preceding the plague might be conſidered to have had ſome influence alſo, the weather of the year 1759 is likewiſe given.

An abridged monthly Deſcription of the Weather.

1759. JANUARY.

The weather, during the firſt nine days, was gloomy and rainy, after which, froſty till the 15th, when a good deal of rain fell.

Of the ſecond fortnight, the two or three firſt days were gloomy, the remainder clear froſt, the two laſt days only excepted.

FEBRUARY.

A good deal of cloudy, rainy weather in the firſt week; in the ſecond an uncommon quantity of ſnow fell; from the 13th, an intenſe froſt.

The

1760. JANUARY.

From the 2d to the 12th, much gloomy, rainy, or foggy weather, to which ſucceeded two clear froſty days, and then the rain returned.

Between the 15th and 21ſt, a good deal of rain fell, after which, the weather changing to hard froſt, the ſky was ſerene till the 23d, when it began to ſnow, and continued ſnowing all the day following. The remainder of the month remarkably foggy. The ſnow began to thaw the 27th, and it rained a little, but no conſiderable alteration happened in the thermometer before the 30th, about which time alſo ſome more rain fell.

FEBRUARY.

The weather, during the firſt nine days, cloudy, with a good deal of rain. From the 9th to the end of the firſt fortnight, clear froſt, excepting the 13th, when a little ſnow and ſleet fell.

In

1761. JANUARY.

The weather, in the firſt fortnight, froſty; the ſky for the moſt part clear. The ſecond week was conſtantly dark and rainy.

From the 15th to the 21ſt, a good deal of cloudy weather, with ſome rain, and a little ſnow. From the 21ſt clear froſt till the 23d, when a little rain fell. The remaining days of January remarkably cold, it was generally overcaſt, and often threatened ſnow, but a very ſmall quantity only fell on the 17th, and the two laſt days of the month.

FEBRUARY.

The beginning of the month ſerene and froſty. From the 3d to the 9th gloomy hazy weather, and an uncommon deal of ſnow. From the 9th to the 14th gloomy and rainy.

From

1762. JANUARY.

At the beginning, dark and rainy. From the 3d to the 7th cloudy, and in the mornings ſometimes foggy. On the 7th and 8th a good deal of ſnow, after which clear, and hard froſt.

The froſt continued till the 19th, after which, till the 27th, much gloomy weather, with a good deal of rain. Two or three clear days intervened, and the rain returned.

FEBRUARY.

The weather gloomy and wet, during the firſt fortnight.

 From

CHAP. III.

1759. FEBRUARY.

The froſt continued till the 22d, and the ſnow lay in ſeveral places till ſo late as the 24th of the month. The laſt ſix days were mild, clear and cloudy, by turns.

MARCH.

During the firſt eleven days, the weather was very mild, the ſky often cloudy, or overcaſt, but little rain fell. The four laſt days of the fortnight rainy.

From the 15th to the 19th gloomy and rainy. The remainder of the month fair; but the eaſt winds being predominant, the ſky was often hazy, or cloudy.

APRIL.

The firſt week ſerene and temperate. On the 8th and 9th, a good deal of rain, and the weather became cool. Some ſhowers towards the end of the fortnight.

From the 15th, the weather continued cool and clear till the 18th, from which time, till the 22d, it was cloſe and warm. The remainder of the month fair, and cooled by freſh weſterly winds.

The

1760. FEBRUARY.

In the laſt fortnight, moderately cold, the firſt week being wet and cloudy, and the laſt alternately cloudy and clear, with hard ſhowers of rain. There were a few thunder ſtorms, which are not common in this month.

MARCH.

After the two firſt days, (which were ſerene) much cloudy, ſhowery weather, till the 8th, from which to the 13th, a great deal of rain. The two laſt days were ſerene and froſty.

From the 14th to the 17th gloomy, and remarkably wet; the reſt (two or three ſerene days excepted) for the moſt part cloudy and ſhowery. An unuſual quantity of rain fell the two laſt days of the month.

APRIL.

The firſt fortnight remarkably cloudy and cold, with ſeveral hard ſhowers of rain. Freſh weſterly winds.

From the 15th to the 19th ſerene, and then, the wind changing to the eaſt, it became hazy, cloſe, and warm. From the 23d to the 28th, cloudy, with ſome violent ſtorms of thunder, lightning, and rain. The few laſt days of the month were clear and temperate.

The

1761. FEBRUARY.

From the 15th to the 25th, ſerene pleaſant weather, and in general temperate. The end of the month perfectly vernal, with gentle ſhowers of rain.

MARCH.

The firſt week ſerene pleaſant weather; the ſecond alternately cloudy and clear, with ſome rain.

The laſt fortnight remarkably cold and wintry, accompanied with much rain in the beginning, and towards the end.

APRIL.

Gloomy wet weather to the 5th, from which to the 8th, variably cloudy and clear alternately, but without rain. After this, to the end of the firſt fortnight, clear, with light eaſterly winds. From the 11th unuſually warm.

The weather clear and warm till the 17th, when (the wind changing weſterly) it became cloudy, and ſeveral ſhowers fell daily till the 23d. From this to the 26th the eaſt wind was predominant, and the weather, in conſequence, warmer. The reſt of the fortnight temperately cool.

The

1762. FEBRUARY.

From the 15th to the 20th, fair, and ſometimes froſty. From the 20th to the end, clear and cloudy by turns, with vernal ſhowers.

MARCH.

The weather, in the firſt fortnight, was often cloudy, or overcaſt, but no great quantity of rain fell.

From the 15th, a good deal of cloſe hazy weather, and the ſky was often cloudy. From the 20th to the 24th, and on the laſt day of the month, ſeveral heavy ſhowers. The eaſterly, and ſometimes weſterly winds blew remarkably ſtrong in the night.

APRIL.

The firſt fortnight often cloudy and overcaſt, but no rain fell, excepting on the 5th, and ſome inconſiderable ſhowers after the 11th.

From the 14th to the 27th for the moſt part clear, with light ſoutherly or eaſterly winds during the day; but at night hard gales from the weſt or north-eaſt. The three laſt days gloomy and hazy, with ſome thunder ſhowers.

A good

CHAP. III.

1759. MAY.	1760. MAY.
The weather ſerene till the 6th, when it became cloudy, and ſeveral thunder ſhowers fell. From this to the 12th, white clouds frequently appeared. About the 12th, the wind, hitherto moderate at weſt, changed to eaſterly, and brought on hazy cloſe weather.	The weather, in the firſt week, was rather cooler than ordinary, though the ſky for the moſt part was ſerene, and the weſterly winds not freſh, till after the 5th. From the 9th much gloomy weather, with frequent thunder ſhowers.
The 16th, a little rain fell; after which, to the 25th, the weather became ſerene and hot, with light breezes and calm. The reſt of the month ſerene, but cooled by freſh weſterly winds.	From the 15th to the 22d, cool, cloudy weather, and hardly one day without thunder ſhowers. The remainder of the months unuſually cloudy, though no rain fell. The weſt wind (leſs ſtrong than uſual) was predominant in the laſt week.
JUNE.	JUNE.
The firſt fortnight (excepting a few white clouds) ſerene, and, after the 5th, rendered cool by a freſh weſt wind. On the 10th, 11th, and 12th, ſome dark paſſing clouds threatened rain. It often lightened from the north-weſt.	The ſky was ſerene in the morning and the evening, but conſtantly about noon, and during part of the afternoon, was overſpread with white clouds; a circumſtance that, together with a moderate weſt wind, contributed to render the weather moſt remarkably cool.
The latter fortnight (the ſky being conſtantly ſerene, with little wind) the	The cool weather continued to the 25th. From the 17th to the 20th, a

1761. MAY.

The firſt fortnight was unuſually cool, a ſtrong weſterly wind blowing conſtantly, and ſome times ſtormy, with heavy black clouds. There were ſome hard ſhowers of hail and rain towards the end. The ſun often obſcured by white clouds paſſing.

This cloudy weather continued during the greateſt part of the 2d fortnight, but, the weſt wind blowing faintly, the weather grew gradually warmer than uſual. Towards the end, light eaſterly or northerly breezes, with cloſe ſultry weather. On the 26th and on the 30th, hard thunder ſhowers.

JUNE.

The firſt week hot, though white clouds were frequent, and the weſt wind blew gently and regularly. The beginning of the ſecond week, the wind changed to the eaſt, the barometer fell, and there were ſome ſhowers. From that to the end, much cloudy, bluſtering weather in the night.

In the day time, the wind was often ſtrong at north eaſt, bringing on cloſe hazy weather, remarkably diſagreeable. At other times it changed to the north, or ſouth of weſt, and refreſhed the air for a few hours, but ſoon gave way to light breezes.

The ſecond fortnight, to the 20th, for the moſt part calm and ſerene. From that

1762. MAY. CHAP. III.

A good deal of cloudy weather, with light eaſterly breezes, in the firſt week. Some thunder ſhowers, with hard guſts of wind, on the 5th and 6th. The ſecond week, for the moſt part, clear, with a freſh weſt wind, after the 10th.

The weather, in general, cooler than laſt year.

From the 15th to the 21ſt, calms, or light weſtern breezes; it was often cloudy, and, on the 18th, ſome rain fell. From the 21ſt to the 26th, heavy clouds frequently appeared in the weſt, and the wind from that quarter was ſometimes boiſterous. The remaining days rather hot; the wind variable at north-eaſt or ſouth.

JUNE.

There was only one ſhower in the firſt week, but a good deal of cloudy weather. In the beginning of the ſecond week a great quantity of rain fell; and, on the 10th, ſuch continued ſhowers, attended with ſo ſettled a gloom, that the whole day was perfectly wintry.

Much leſs wind than in the preceding year, but the weather cooler, and the thermometer all along lower, by ſeveral degrees.

From the 15th to the 21ſt large clouds appeared towards night, and the

CHAP. III.

1759. JUNE.

weather, as uſual, became gradually hotter. The two laſt days, only, were cooled by a freſh weſt wind.

JULY.

In the firſt fortnight, (a few days at the beginning excepted) the weather was remarkably cool. The ſky was perpetually ſerene, but the weſt wind blew freſh, and conſtantly.

The weather (in reſpect to the ſeaſon) remarkably cool, as in the firſt fortnight. A few white clouds appeared about the middle of the month, and ſome heavy clouds towards the end, but otherwiſe the ſky was conſtantly ſerene.

4 The

1760. JUNE.

ſtrong weſt wind was predominant, after which, the weather continued moſt remarkably cloudy and ſtormy, with much thunder, and it often threatened rain. One hard ſhower fell the 21ſt. From the 25th the ſky was clear, and the weather became as uſual in other years, but the winds continued boiſterous.

JULY.

During ſome days at the beginning, the weſt wind was boiſterous, and the ſun was ſometimes obſcured by white clouds. From the 6th, ſerene, little wind, and of courſe hot. About the 12th, upon the wind's freſhening, it became more temperate.

The ſky conſtantly ſerene, excepting a few days when ſome white flying clouds paſſed. The weſt wind conſtantly freſh, and the weather temperately cool.

Calms

1761. JUNE.

that time, the ſtrong variable winds returning, and large heavy clouds paſſing in the day, the weather became very cool. After the 26th, ſerene, little wind, and hot.

JULY.

The firſt week ſerene, and very hot. The ſecond week refreſhed by the regular return of the weſt wind every day.

A phenomenon (not uncommon in very hot weather) was obſerved the 14th of this month, in an extraordinary degree. The horizon to the S., S. S. W. and W. appeared of a duſky red colour, and the air ſeemed as if replete with duſt. This continued till the afternoon, when the duſt was diſperſed by the ſpringing up of the weſt wind.

During ſome days of the 2d fortnight, large white clouds paſſed, and dews fell in the night. From the 19th to the 22d, light eaſterly breezes, and hot. The 22d and 23d, boiſterous weſt winds in the night, and very cool. The 24th and 25th hot. The reſt of the month cool, with ſtrong weſt winds. Heavy black clouds on the 27th and 28th.

In

1762. JUNE.

the weſt wind blew freſh, ſometimes ſtormy. From the 21ſt the ſky conſtantly ſerene, but the wind continued freſh, and, excepting the two or three laſt days, the weather all along was much cooler than in the year before.

JULY.

The beginning rendered cool by a freſh weſt wind. After the 4th, the thermometer roſe ſomewhat, and kept nearly the ſame ſtation as in the laſt year. The mornings, till the 9th, were rather hot; after which, the weſt wind blowing freſh, the weather was conſtantly cool, for the ſeaſon.

The weather continued cool to the 23d, when the heat increaſed ſomewhat, but not ſo much as uſual. From the 25th to the 28th, ſome clouds paſſed, and a little dew fell. The weſt wind freſh. After the 28th, little wind, and hot.

The

CHAP. III.

1759. AUGUST.

The weather, during the firſt fortnight, (as in laſt month) uncommonly cool, the weſt wind blowing almoſt conſtantly freſh.

The cool weather continued to the 18th, when the wind failed, but that returning on the 22d, it again became cool, and dews fell in the night. The 25th and 26th, hot. On the 27th and 28th, a hot wind, with reddiſh heavy clouds to the weſtward, and the duſt was raiſed in eddies, as uſual before the autumnal rains. A little ſhower, attended with loud thunder, fell the afternoon of the 28th. The three laſt days, little wind and hot.

SEPTEMBER.

The weather, in the firſt fortnight, became ſerene and rather warm, though the weſt wind was pretty conſtant, and ſometimes freſhened in the afternoon.

In the third week, white clouds often paſſed, but it ſtill continued warm. On the 19th it blew hard, and the duſt was raiſed, as uſual before the autumnal rains. On the 22d, gloomy, with ſome ſmall ſhowers. A little more rain fell the 25th, and ſome hard ſhowers the 27th. From the 25th the weather became much cooler, and the ſky in the forenoon was often clouded.

A good

1760. AUGUST.

Calms, or light weſtern breezes, predominant to the middle of the month. Sometimes the eaſt wind blew freſh in the night. The ſky ſerene, and the weather very hot.

From the 14th to the 17th, white clouds were frequent, and the weſt wind was pretty regular in its diurnal return, ſo that, in general, the weather was temperately cool. Dews frequent in the night. The few latter days of the month very hot.

SEPTEMBER.

Calm, ſerene, and hot, except one or two nights, when the air was cooled by moderate weſt winds.

The third week cooler, the weſt wind being freſh in the nights. The 19th, ſtrong ſqualls of wind, heavy clouds, with lightening, and the duſt raiſed in eddies. A ſmall ſhower. The latter week reſembled the firſt fortnight, only that the mornings and evenings were become pleaſantly cool.

Clear,

1761. AUGUST.

In the firſt fortnight, the ſun was ſometimes obſcured by denſe white clouds, but the ſky, in general, was ſerene. The weſt wind, for the moſt part, freſh, and the weather cool.

In the ſecond fortnight, white paſſing clouds were more frequent, and the weſt wind, though not ſo freſh, was pretty conſtant. The weather ſtill continued rather cool; and, on ſuch days as were reckoned warm, the heat was not, by ſeveral degrees, equal to that of the year before.

1762. AUGUST. CHAP. III.

The firſt fortnight hot and ſultry, the weſt wind freſhning only a ſhort time about noon. White flying clouds often appeared near the horizon to the N. W.

Between the 15th and 22d, a good deal of calm, duſky, gloomy weather, and on the 18th ſome ſhowers of rain. The air, however, was not refreſhed. The remainder of the month clear, little winds, or calms, and exceedingly hot.

SEPTEMBER.

On the 2d ſeveral clouds appeared. Next morning a heavy ſhower fell, and the whole of that day was uncommonly cloudy and rainy. The weather after this became cool, the weſt wind being in general freſh, and white clouds paſſing in the day time.

On the 15th, a high wind, and clouds of duſt flying about, but no more rain fell this month. From the 17th to the 21ſt, calm and warm. The nights of the 21ſt and 22d cool, after which calm hot weather to the 27th. The two ſucceeding days cloudy and cool. The two latter days of September ſerene, and calm, and the nights hotter than the day.

SEPTEMBER.

Calm, ſerene, and hot to the 5th, after which the air was ſomewhat refreſhed by light breezes, and by the interpoſition of white clouds. Between the 5th and 8th, heavy clouds ſometimes threatened rain, but none fell, excepting one inconſiderable ſhower on the 6th.

The ſecond fortnight, to the 24th, perfectly clear, with little wind, and conſequently hot. After which it became cooler, white clouds appearing frequently, and the ſky being ſometimes overcaſt. Towards the end of the month freſh weſterly winds in the night. On the 29th, a ſhort ſtormy ſhower ſunk the thermometer from 71 to 63.

CHAP. III.

1759. OCTOBER.

A good deal of rain on the 2d and 3d, after which the weather was conſtantly ſerene, and (little wind blowing) it became rather warmer than it had been towards the end of September.

Serene and calm till the 22d, then light breezes, with cloudy weather; the mornings cool. On the 24th and 25th ſome rain, after which to the end (excepting the 30th) ſerene and calm.

NOVEMBER.

Serene and temperate weather at the beginning. From the 2d to the 13th gloomy and rainy. The laſt days of the firſt fortnight ſerene and temperate.

From the 14th to the 17th ſerene, from that to the 22d a good deal of cloudy weather, with ſome ſhowers; it then cleared up again. From the 25th to the 29th, much gloomy rainy weather. The laſt days of the month ſerene. The air in general unuſually warm.

DECEMBER.

For the moſt part ſerene, calm, and temperate to the 5th; the reſt of the firſt fortnight gloomy, rainy weather.

From

1760. OCTOBER.

Clear, mild, and pleaſant; one o two cloudy days intervened, but no rain fell.

Some ſhowers and cloudy weather between the 15th and the 19th, particularly on the 17th, when it rained hard for one hour, accompanied with thunder and eddies of duſt. From the 19th to the end, conſtantly ſerene and calm, ſo that it was often ſultry in the day, and the mornings and evenings were leſs freſh than uſual.

NOVEMBER.

The few firſt days clear and pleaſant. From the 6th to the 12th overcaſt or cloudy, with ſome rain, and the weather became cooler. It then cleared up.

The beginning ſerene, but from the 17th much gloomy dark weather, with ſeverel ſhort ſhowers. After the 25th a great deal of rain fell. The weather cooler all the month than in the laſt year.

DECEMBER.

During the two firſt days continual rains. From the 3d to the 11th, froſty for the moſt part, and clear. The weather then became gloomy and rainy.

1761. OCTOBER.

The firſt five days often cloudy, and a few drops of rain fell. The reſt of the fortnight warm: the ſky unclouded, and the nights quite calm.

From the 15th to the 26th, light eaſterly winds; the ſky clear, and the air, during the day and in the evenings, rather warmer than in the firſt part of the month. It threatened rain on the 28th, but cleared up again, and continued cloſe and warm to the end.

NOVEMBER.

A good deal of cloudy, gloomy weather in the firſt ten days, with ſhort ſhowers. From the 10th clear, frequent calms, or light breezes eaſterly, and the air temperate.

Fair, clear, and pleaſant, to the 25th, the mornings growing gradually cooler. From the 25th dark and gloomy, with ſome rain, but the weather not cold: it ſometimes blew freſh eaſterly, but calms and light breezes, as in the firſt fortnight, were ſtill predominant.

DECEMBER.

The weather, at the beginning, cloudy and temperate. Some hard ſhowers towards the end of the firſt fortnight. From the 8th to the 14th gloomy and cold, with a little ſnow and ſleet. A good deal of rain on the 11th.

From

1762. OCTOBER.

The weather, during the firſt four days, ſerene, but rather cool; after which it became cloſe and warm, ſometimes threatening rain. After the 9th clear, and, now and then, hard guſts of wind northerly or eaſterly.

The ſecond fortnight (except two days) conſtantly ſerene. On the 21ſt ſome clouds appeared, and it lightened at night. On the 26th it rained all forenoon, after which the air appeared much cooler, although the thermometer ſunk no lower than 63, which was its morning ſtation at the beginning of the month.

NOVEMBER.

The firſt fortnight clear pleaſant weather. The 11th only was cloudy, and in the night a good deal of rain fell, accompanied with loud thunder.

The ſecond fortnight continued temperate, and pleaſant, though the ſky was ſometimes obſcured by tranſient clouds. In the night of the 19th and 25th, and on the 20th a little rain fell. The winds chiefly E. or N. E. and always gentle, except ſome ſqualls towards the end of the month.

DECEMBER.

The firſt week gloomy and rainy. The ſecond ſerene and froſty, but not intenſely cold.

The

CHAP. III.

1759. DECEMBER.

From the 15th to the 26th, fair pleaſant weather, the mornings and evenings, only, being ſometimes foggy. From the 26th gloomy, with very heavy rains. The weather mild throughout.

1760. DECEMBER.

The firſt day rainy. From the 16th to the 20th, fair ſpring-like weather. Five or ſix rainy days ſucceeded, after which it became cooler, and the three laſt days were clear and froſty.

1761. DECEMBER.

From the 14th to the 19th, ſerene and froſty. During the ten ſucceeding days, much cloudy wet weather, the rain ſometimes accompanied with thunder and guſts of wind. The air was temperate to the 29th, when the froſt returned. Light eaſterly breezes predominant all the month.

1762. DECEMBER.

The clear froſty weather continued till the 18th, when it became cloudy. On the 20th it ſnowed a little, after which the ſky became ſerene, and the froſt intenſe till the 25th. The remainder of the fortnight for the moſt part cloudy, and a little ſnow fell.

The winds, as in the month of November, eaſterly or north-eaſt, and ſeldom freſh.

CHAP. IV.

Comparative View of the Seaſons at Aleppo, in Six Peſtilential Years.

Though I have not been able, from a compariſon of the ſeaſons of different years, to deduce any ſatisfactory inference reſpecting their influence on the propagation of the plague; others, more converſant with meteorological ſubjects, may perhaps be more ſucceſsful. For this reaſon, to the account of the weather already given, I ſhall here add a compendious view of the four ſeaſons, in ſix plague years at Aleppo, diſpoſed in ſuch a manner that their correſpondence, or their variation in the reſpective years, may be examined comparatively, with leſs trouble.

SPRING.

1742.	1743.	1744.
Dry, and rather warm. Towards the latter part very warm.	Wet, and for the moſt part cool. After the 10th of March a great deal of rain, and about the 14th (3d old ſtile) ſome ſnow. There was ſome hazy weather in the middle of April, but in the beginning and end of that month, and in the firſt fortnight of May, a great number of thunder ſhowers.	Dry and warm, afterwards wet. The weather in March variable, warm, and ſometimes hazy; very little rain. From the 10th of April to the 10th of May, a good deal of rain and cool weather.
Rainy Days. March April May.	Rainy Days. March 6 April 7 May 6 Eclipſe of the Moon.	Rainy Days. March 4 April 5 May 7 April 28th, three ſhocks of an Earthquake.

SUMMER.

SPRING.

1760.	1761.	1762.
Wet in an extraordinary degree, and cold. Leſs than uſually cloſe, hazy weather.	Wet. The weather, at firſt temperate, became remarkably cold and wintry about the middle of March, and continued ſo till the 11th of April. After ſome clear, warm days. The weather variable, and ſometimes hazy. Some ſhowers of hail and rain towards the end.	Moderately wet, and rather cool. Much cloudy weather, and the eaſt or weſt winds were often remarkably high in the night.
Rainy Days *. March 18 33 April 9 11 May 8 6 50	Rainy Days. March 14 25 April 9 11 May 2 2 38	Rainy Days. March 11 17 April 6 9 May 5 5 31

* The ſmall figures, in the firſt column, denote the number of rainy days in the reſpective months; thoſe, in the ſecond, the quantity of rain that fell.

CHAP. IV.

SUMMER.

1742.	1743.	1744.
The firſt fortnight of ſummer warm. The whole of June rendered cool by freſh breezes weſterly. July to the 20th very hot, with breezes at N. W. The reſt of the ſummer temperately hot, without the hot eaſterly winds.	The firſt fortnight of ſummer, warm, light breezes, and hazy weather. June to the 20th, cool, with freſh weſterly winds. From that to the ſecond week of July, though it often blew freſh, and ſome ſhowers fell, the weather was hot. Flying clouds were frequent, and weſt gales pretty conſtant after the middle of July, ſo that the air was rather cool till the middle of Auguſt. The reſt calm and hot.	Some rain the beginning of the firſt fortnight of May, and beginning of June. June was hot, attended with light breezes at N. E., and calms. July was moderately refreſhed by weſtern breezes. Auguſt was calm and hot, the air ſometimes rendered extremely hot by eaſterly breezes.
Rainy Days. May June July Aug.	Rainy Days. May 1 June 1 July 1 Aug. 0 June 12th, and Auguſt 19th, Earthquakes.	Rainy Days. May 1 June 1 July 0 Aug. 1

SUMMER.

1760.

The firſt ſummer month was remarkably cloudy and cool, and its beginning, and its latter end, attended by thunder ſhowers; the winds often boiſterous. July was moderately refreſhed by weſt winds. Auguſt calm and hot, with ſtrong eaſt winds in the ſecond week. It then became more temperate, and ſome dews fell. The laſt days of the ſummer exceſſively hot.

Rainy Days.

May	2	2
June	1	1
July	0	0
Aug.	0	0
		3

1761.

The ſummer remarkably variable till the end of July; the weather being alternately hot and cold, and often accompanied with eaſt winds, and breezes. There were ſome thunder ſhowers the end of May, and alſo in the ſecond week of June. Auguſt, on the whole, was cool.

Rainy Days.

May	2	5
June	1	2
July	0	0
Aug.	0	0
		7

1762.

The beginning of the ſummer, variable weather; ſome rain the 18th of May. From the beginning of June to the 23d of July, unuſually cool; the weſt wind conſtant. A remarkably rainy, bleak day, in June. Between the 25th and 28th of July, clouds, and ſome dews. It then became hot, and continued ſo all Auguſt, with calms, light breezes, and a ſky often clouded.

Rainy Days.

May	1	2
June	4	5
July	0	0
Aug.	1	2
		9

AUTUMN

AUTUMN.

1742.	1743.	1744.
Dry and warm.		
The autumnal rains, fell the firſt week of October; the ſecond rains, about the 10th of November. The interval, between thoſe two periods, fair and pleaſant, as alſo the latter part of the autumn.	The firſt autumnal rains fell about the end of September; the ſecond rains in the firſt week of November. The weather calm and hot till the fall of the ſecond rains; the firſt having only refreſhed the air for a few days. A good deal of rain in November. The latter part of the autumn fair and froſty.	A ſhower of rain, in the ſecond week of September, cooled the air for a few days, and the firſt rains fell about the 15th. But the weather continued for the moſt part hot, till the end of the month, when a more ſenſible change took place, in conſequence of ſhowers which fell about that time. The ſecond rains fell the latter end of October. November was leſs rainy than uſual.
Rainy Days. Sept. 0 Oct. 1 Nov. 5	Rainy Days. Sept. 2 Oct. 9 Nov. 9	Rainy Days. Sept. 3 Oct. 5 Nov. 3

WINTER.

AUTUMN.

1760.	1761.	1762.
The autumn wet, and moderately warm till November, which was cold and rainy.	The autumn moderately wet, and temperately warm.	The autumn remarkably dry and warm.
The firſt rains fell in the third week of September, but refreſhed the air only for a few days. There was a thunder ſhower the 17th of October; after which, it was calm, and hotter than uſual.	The firſt rain fell the 2d September, and the weather was rather cool till the midle of the month; after which, it was variably hot and cool, till the 5th of October. October was hot; no more rain fell after the 5th. The firſt ten and the laſt five days of November cloudy and ſhowery; but the weather was not cold.	A ſmall ſhower, the 6th of September, without refreſhing the air. On the 29th, a ſtormy ſhower rendered the weather cool for a few days, but it again became warm, till the ſecond rains, which fell the 26th of October. November, was temperate and pleaſant, with little rain.
Rainy Days.	Rainy Days.	Rainy Days.
Sept. 2 1	Sept. 1 3	Sept. 2 2
Oct. 1 2	Oct. 5 1	Oct. 1 2
Nov. 14 27	Nov. 8 14	Nov. 4 6
30	18	10

WINTER.

CHAP. IV.

WINTER.

1742.

Frosty and wet.

The weather fair and pleasant till Christmas, when a frost set in which continued near a month. A good deal of snow fell about the middle of January. The remainder of the winter for the most part cloudy and rainy, and there was some snow and hail so late even as the third week of February.

Rainy Days.	Snowy Days.	
Dec. 0	11 5	Dec. 14th Earth-
Jan. 4	1 2	quake.
Feb. 14		

1743.

Moderately frosty, and wet.

The weather cloudy and rainy, till the 10th of January, the rest of that month, hard frost, attended with four remarkable snowy days. February for the most part rainy and variable, with only a few frosty days intervening.

Rainy Days.	Snowy Days.
Dec. 8	0
Jan. 5	IV 8
Feb. 9	0

1744.

Wet, with very little frost.

There were a few frosty days, with some snow, in January, but the greatest part of that month, as well as December, were constantly rainy. February, clear and temperate weather, with very little rain.

Rainy Days.	Snowy Days.
Dec. 19	0
Jan. 12	2 5
Feb. 7	0

WINTER.

1760.

The winter ſevere, being alternately wet and froſty.

The froſt began earlier than uſual, and in January ſome ſnow fell; but in February an uncommon quantity. The latter part of the winter pleaſant, and vernal.

Rainy Days.		Snowy Days.	
Dec. 12	27	0	
Jan. 20	23	IV	11
Feb. 5	14	IV	
	64		

1761.

The winter extraordinarily wet.

The froſt and ſnow moderate, but the froſt begun earlier and lingered to the ſecond fortnight of February. The laſt days of the ſeaſon, variable, ſpring weather.

Rainy Days.		Snowy Days.	
Dec. 13	29	11 1	7
Jan. 8	21	11 6	
Feb. 18	36	0	
	86		

1762.

The winter extraordinarily froſty, with a good deal of ſnow; very moderately wet.

From the ſecond week of December, to the ſecond week in February, (a few ſhort intervals of rainy weather excepted) for the moſt part froſty, moderate at firſt, but towards the end pretty intenſe. The laſt fortnight of the winter, the air temperate, but the ſpring backward.

Rainy Days.		Snowy Days.	
Dec. 5	12	11	9
Jan. 8	16	IV	
Feb. 5	6	0	
	34		

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